



U.S. Department of Justice

Federal Bureau of Investigation

Washington, D.C. 20535

November 16, 2020

Vladimir Kara-Murza  
c/o Covington & Burlington, LLP  
One City Center  
850 Tenth Street, NW,  
Washington, DC 20001-4956

Vladimir Kara-Murza v. Department of Justice  
Civil Action No.: 1:20-cv-00545-RC

FOIPA Request No.: 1410820-000  
Subject: Kara-Murza, Vladimir  
(May 2015- July 2018)

Dear Mr. Kara-Murza:

The enclosed documents were reviewed under the Freedom of Information/Privacy Acts (FOIPA), Title 5, United States Code, Section 552/552a. Below you will find checked boxes under applicable statutes for the exemptions asserted to protect information exempt from disclosure. The appropriate exemptions are noted on the processed pages next to redacted information. In addition, a deleted page information sheet was inserted to indicate where pages were withheld entirely pursuant to applicable exemptions. An Explanation of Exemptions is enclosed to further explain justification for withheld information.

**Section 552**

☐ (b)(1)

☐ (b)(2)

☒ (b)(3)

50 U.S.C., Section 3024 (i)(1)

☐ (b)(4)

☐ (b)(5)

☒ (b)(6)

☐ (b)(7)(A)

☐ (b)(7)(B)

☒ (b)(7)(C)

☐ (b)(7)(D)

☒ (b)(7)(E)

☐ (b)(7)(F)

☐ (b)(8)

☐ (b)(9)

**Section 552a**

☐ (d)(5)

☒ (j)(2)

☐ (k)(1)

☐ (k)(2)

☐ (k)(3)

☐ (k)(4)

☐ (k)(5)

☐ (k)(6)

☐ (k)(7)

606 pages were reviewed and 346 pages are being released.

Please see the paragraphs below for relevant information specific to your request and the enclosed FBI FOIPA Addendum for standard responses applicable to all requests.

- ☒ Document(s) were located which originated with, or contained information concerning, other Government Agency (ies) [OGA].
- ☐ This information has been referred to the OGA(s) for review and direct response to you.
- ☒ We are consulting with another agency. The FBI will correspond with you regarding this information when the consultation is completed.

Please refer to the enclosed FBI FOIPA Addendum for additional standard responses applicable to your request. "Part 1" of the Addendum includes standard responses that apply to all requests. "Part 2" includes additional standard responses that apply to all requests for records about yourself or any third party individuals. "Part 3" includes general information about FBI records that you may find useful. Also enclosed is our Explanation of Exemptions.

Although your request is in litigation, we are required by law to provide you the following information:

If you are not satisfied with the Federal Bureau of Investigation's determination in response to this request, you may administratively appeal by writing to the Director, Office of Information Policy (OIP), United States Department of Justice, 441 G Street, NW, 6th Floor, Washington, D.C. 20530, or you may submit an appeal through OIP's FOIA STAR portal by creating an account following the instructions on OIP's website: <https://www.justice.gov/oip/submit-and-track-request-or-appeal>. Your appeal must be postmarked or electronically transmitted within ninety (90) days of the date of my response to your request. If you submit your appeal by mail, both the letter and the envelope should be clearly marked "Freedom of Information Act Appeal." Please cite the FOIPA Request Number assigned to your request so it may be easily identified.

You may seek dispute resolution services by contacting the Office of Government Information Services (OGIS). The contact information for OGIS is as follows: Office of Government Information Services, National Archives and Records Administration, 8601 Adelphi Road-OGIS, College Park, Maryland 20740-6001, e-mail at [ogis@nara.gov](mailto:ogis@nara.gov); telephone at 202-741-5770; toll free at 1-877-684-6448; or facsimile at 202-741-5769. Alternatively, you may contact the FBI's FOIA Public Liaison by emailing [foipaquestions@fbi.gov](mailto:foipaquestions@fbi.gov). If you submit your dispute resolution correspondence by email, the subject heading should clearly state "Dispute Resolution Services." Please also cite the FOIPA Request Number assigned to your request so it may be easily identified.

Please direct any further inquiries about this case to the Attorney representing the Government in this matter. Please use the FOIPA Request Number and/or Civil Action Number in all correspondence or inquiries concerning your request.



See additional information which follows.

Sincerely,



Michael G. Seidel  
Section Chief  
Record/Information  
Dissemination Section  
Information Management Division

Enclosure(s)

The enclosed documents represent the third interim release of information responsive to your Freedom of Information/Privacy Acts (FOIPA) request. These pages are properly Bates stamped FBI (20-cv-0545)-892 through FBI (20-cv-0545)-1497

The enclosed documents responsive to your request are exempt from disclosure in their entirety pursuant to the Privacy Act, Title 5, United States Code, Section 552(a), subsection (j)(2). However, these records have been processed pursuant to the Freedom of Information Act, Title 5, United States Code, Section 552, thereby affording you the greatest degree of access authorized by both laws.

Duplicate copies of the same document were not processed.

As previously indicated, documents were located which originated with, or contained information concerning another agencies. We are consulting with the other agencies and are awaiting their response. Our office has processed all other information currently in our possession. The FBI will correspond with you regarding those documents when the consultation is completed.

The FBI received an electronic payment submitted through pay.gov in the amount of \$25.00 for the first and second interim releases. Upon receipt of the enclosed CD please go to [www.pay.gov](http://www.pay.gov) to make an electronic payment\* in the amount of \$15.00 for the third interim release, or make a check or money order payable to the Federal Bureau of Investigation and remit it to the **Work Process Unit, Record Information/Dissemination Section, Information Management Division, Federal Bureau of Investigation, 170 Marcel Drive, Winchester, VA 22602**. Please include the FOIPA Request Number/Civil Action Number with your payment. Failure to pay for this release within thirty (30) days from the date of this letter will close any pending FBI FOIPA requests from you. Nonpayment will also cause an automatic denial of any future FOIPA requests.

*\*Pay.gov is a secure web-based application that accepts credit card and ACH payments online, and is hosted by the United States Department of Treasury, Financial Management Service. For frequent FOIPA requesters, it is recommended to create a Pay.gov account to retain an online history of payments made through Pay.gov and to retain specific information for future payments. To make an electronic payment, complete the FBI Freedom of Information Act and Privacy Act Form located on Pay.gov. Please note: if a refund is necessary, there is less processing time to refund a credit card payment than an ACH payment.*

## FBI FOIPA Addendum

As referenced in our letter responding to your Freedom of Information/Privacy Acts (FOIPA) request, the FBI FOIPA Addendum provides information applicable to your request. Part 1 of the Addendum includes standard responses that apply to all requests. Part 2 includes standard responses that apply to requests for records about individuals to the extent your request seeks the listed information. Part 3 includes general information about FBI records, searches, and programs.

### Part 1: The standard responses below apply to all requests:

- (i) **5 U.S.C. § 552(c).** Congress excluded three categories of law enforcement and national security records from the requirements of the FOIPA [5 U.S.C. § 552(c)]. FBI responses are limited to those records subject to the requirements of the FOIPA. Additional information about the FBI and the FOIPA can be found on the [www.fbi.gov/foia](http://www.fbi.gov/foia) website.
- (ii) **Intelligence Records.** To the extent your request seeks records of intelligence sources, methods, or activities, the FBI can neither confirm nor deny the existence of records pursuant to FOIA exemptions (b)(1), (b)(3), and as applicable to requests for records about individuals, PA exemption (j)(2) [5 U.S.C. §§ 552/552a (b)(1), (b)(3), and (j)(2)]. The mere acknowledgment of the existence or nonexistence of such records is itself a classified fact protected by FOIA exemption (b)(1) and/or would reveal intelligence sources, methods, or activities protected by exemption (b)(3) [50 USC § 3024(i)(1)]. This is a standard response and should not be read to indicate that any such records do or do not exist.

### Part 2: The standard responses below apply to all requests for records on individuals:

- (i) **Requests for Records about any Individual—Watch Lists.** The FBI can neither confirm nor deny the existence of any individual's name on a watch list pursuant to FOIA exemption (b)(7)(E) and PA exemption (j)(2) [5 U.S.C. §§ 552/552a (b)(7)(E), (j)(2)]. This is a standard response and should not be read to indicate that watch list records do or do not exist.
- (ii) **Requests for Records about any Individual—Witness Security Program Records.** The FBI can neither confirm nor deny the existence of records which could identify any participant in the Witness Security Program pursuant to FOIA exemption (b)(3) and PA exemption (j)(2) [5 U.S.C. §§ 552/552a (b)(3), 18 U.S.C. 3521, and (j)(2)]. This is a standard response and should not be read to indicate that such records do or do not exist.
- (iii) **Requests for Records for Incarcerated Individuals.** The FBI can neither confirm nor deny the existence of records which could reasonably be expected to endanger the life or physical safety of any incarcerated individual pursuant to FOIA exemptions (b)(7)(E), (b)(7)(F), and PA exemption (j)(2) [5 U.S.C. §§ 552/552a (b)(7)(E), (b)(7)(F), and (j)(2)]. This is a standard response and should not be read to indicate that such records do or do not exist.

### Part 3: General Information:

- (i) **Record Searches.** The Record/Information Dissemination Section (RIDS) searches for reasonably described records by searching systems or locations where responsive records would reasonably be found. A standard search normally consists of a search for main files in the Central Records System (CRS), an extensive system of records consisting of applicant, investigative, intelligence, personnel, administrative, and general files compiled by the FBI per its law enforcement, intelligence, and administrative functions. The CRS spans the entire FBI organization, comprising records of FBI Headquarters, FBI Field Offices, and FBI Legal Attaché Offices (Legats) worldwide; Electronic Surveillance (ELSUR) records are included in the CRS. Unless specifically requested, a standard search does not include references, administrative records of previous FOIPA requests, or civil litigation files. For additional information about our record searches, visit [www.fbi.gov/services/information-management/foipa/requesting-fbi-records](http://www.fbi.gov/services/information-management/foipa/requesting-fbi-records).
- (ii) **FBI Records.** Founded in 1908, the FBI carries out a dual law enforcement and national security mission. As part of this dual mission, the FBI creates and maintains records on various subjects; however, the FBI does not maintain records on every person, subject, or entity.
- (iii) **Requests for Criminal History Records or Rap Sheets.** The Criminal Justice Information Services (CJIS) Division provides Identity History Summary Checks – often referred to as a criminal history record or rap sheet. These criminal history records are not the same as material in an investigative “FBI file.” An Identity History Summary Check is a listing of information taken from fingerprint cards and documents submitted to the FBI in connection with arrests, federal employment, naturalization, or military service. For a fee, individuals can request a copy of their Identity History Summary Check. Forms and directions can be accessed at [www.fbi.gov/about-us/cjis/identity-history-summary-checks](http://www.fbi.gov/about-us/cjis/identity-history-summary-checks). Additionally, requests can be submitted electronically at [www.edo.cjis.gov](http://www.edo.cjis.gov). For additional information, please contact CJIS directly at (304) 625-5590.
- (iv) **National Name Check Program (NNCP).** The mission of NNCP is to analyze and report information in response to name check requests received from federal agencies, for the purpose of protecting the United States from foreign and domestic threats to national security. Please be advised that this is a service provided to other federal agencies. Private Citizens cannot request a name check.



## **EXPLANATION OF EXEMPTIONS**

### **SUBSECTIONS OF TITLE 5, UNITED STATES CODE, SECTION 552**

- (b)(1) (A) specifically authorized under criteria established by an Executive order to be kept secret in the interest of national defense or foreign policy and (B) are in fact properly classified to such Executive order;
- (b)(2) related solely to the internal personnel rules and practices of an agency;
- (b)(3) specifically exempted from disclosure by statute (other than section 552b of this title), provided that such statute (A) requires that the matters be withheld from the public in such a manner as to leave no discretion on issue, or (B) establishes particular criteria for withholding or refers to particular types of matters to be withheld;
- (b)(4) trade secrets and commercial or financial information obtained from a person and privileged or confidential;
- (b)(5) inter-agency or intra-agency memorandums or letters which would not be available by law to a party other than an agency in litigation with the agency;
- (b)(6) personnel and medical files and similar files the disclosure of which would constitute a clearly unwarranted invasion of personal privacy;
- (b)(7) records or information compiled for law enforcement purposes, but only to the extent that the production of such law enforcement records or information ( A ) could reasonably be expected to interfere with enforcement proceedings, ( B ) would deprive a person of a right to a fair trial or an impartial adjudication, ( C ) could reasonably be expected to constitute an unwarranted invasion of personal privacy, ( D ) could reasonably be expected to disclose the identity of confidential source, including a State, local, or foreign agency or authority or any private institution which furnished information on a confidential basis, and, in the case of record or information compiled by a criminal law enforcement authority in the course of a criminal investigation, or by an agency conducting a lawful national security intelligence investigation, information furnished by a confidential source, ( E ) would disclose techniques and procedures for law enforcement investigations or prosecutions, or would disclose guidelines for law enforcement investigations or prosecutions if such disclosure could reasonably be expected to risk circumvention of the law, or ( F ) could reasonably be expected to endanger the life or physical safety of any individual;
- (b)(8) contained in or related to examination, operating, or condition reports prepared by, on behalf of, or for the use of an agency responsible for the regulation or supervision of financial institutions; or
- (b)(9) geological and geophysical information and data, including maps, concerning wells.

### **SUBSECTIONS OF TITLE 5, UNITED STATES CODE, SECTION 552a**

- (d)(5) information compiled in reasonable anticipation of a civil action proceeding;
- (j)(2) material reporting investigative efforts pertaining to the enforcement of criminal law including efforts to prevent, control, or reduce crime or apprehend criminals;
- (k)(1) information which is currently and properly classified pursuant to an Executive order in the interest of the national defense or foreign policy, for example, information involving intelligence sources or methods;
- (k)(2) investigatory material compiled for law enforcement purposes, other than criminal, which did not result in loss of a right, benefit or privilege under Federal programs, or which would identify a source who furnished information pursuant to a promise that his/her identity would be held in confidence;
- (k)(3) material maintained in connection with providing protective services to the President of the United States or any other individual pursuant to the authority of Title 18, United States Code, Section 3056;
- (k)(4) required by statute to be maintained and used solely as statistical records;
- (k)(5) investigatory material compiled solely for the purpose of determining suitability, eligibility, or qualifications for Federal civilian employment or for access to classified information, the disclosure of which would reveal the identity of the person who furnished information pursuant to a promise that his/her identity would be held in confidence;
- (k)(6) testing or examination material used to determine individual qualifications for appointment or promotion in Federal Government service the release of which would compromise the testing or examination process;
- (k)(7) material used to determine potential for promotion in the armed services, the disclosure of which would reveal the identity of the person who furnished the material pursuant to a promise that his/her identity would be held in confidence.

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7-22 (7-2006)

LABORATORY DIVISION  
SUPPORTING DOCUMENTATION ENVELOPE

Case ID# [REDACTED]

FA Serial # 19

Please Print Clearly

The Enclosed material for

[REDACTED] Name

supports Laboratory Report

Case File No. and Serial

Lab Number(s)  
Or MOJ Number

2017-00469-2

Description of Enclosure

ANALYTICAL DATA

Chain of Custody

Communication and Activity Log

☒ Notes

☒ Instrument Print Out, Charts, Graphs

☐ Magnifiers

☐ Photographs

☐ ECU Search Slip

☐ Shipping Invoice

FBI(20-cv-0545)-1152

b3 -1  
b6 -1  
b7C -1  
b7E -1



Lab # **2017-00469**

WFO case

Examiner:

Case Summary

Specimen ID **Item 1**Specimen Type **Blood**

Inventory: 2/23/2017 Amount: 5mL

SOP Title	SOP	Rev	Instruments	Amount	Analyst	Started	Completed	Analytical Results
Exclusionary Drug Screen by UPLC-ESI-FTMS	215	2	Exactive-1	0.3mL		9/28/2017	10/5/2017	not detected
Solid Phase Extraction (SPE) of Alkaline Drugs from Biological Fluids	203	7	MSD-5, ORBITRAP-3	1.0mL		10/2/2017	10/5/2017	ranitidine identified

Specimen ID **Item 2**Specimen Type **Urine**

Inventory: 2/23/2017 Amount: 10mL

SOP Title	SOP	Rev	Instruments	Amount	Analyst	Started	Completed	Analytical Results
Exclusionary Drug Screen by UPLC-ESI-FTMS	215	2	Exactive-1	0.3mL 0.2 mL		2/24/2017	2/27/2017	(data not used to generate supporting material for the scope of this report)
Arsenic in Urine and Hair by ICP/MS	320	0	ICPMS-1a	0.2mL		9/25/2017	10/5/2017	Barium elevated at approximately 93ug/L. No other elevated elements of significance.
Direct Solvent Extraction of Acid-Neutral Drugs from Biological Fluids	201	5	MSD-4	0.5mL		9/25/2017	10/5/2017	not detected
Exclusionary Drug Screen by UPLC-ESI-FTMS	215	2	Exactive-1	0.3mL		9/28/2017	10/5/2017	not detected
Solid Phase Extraction (SPE) of Alkaline Drugs from Biological Fluids	203	7	MSD-5, ORBITRAP-3	1.0mL		10/2/2017	10/5/2017	phenethylamine identified (not reporting), ranitidine identified

Specimen ID **Item 3**Specimen Type **Blood**

Collected 4/24/2017

Inventory: 4/26/2017 Amount: 4mL

SOP Title	SOP	Rev	Instruments	Amount	Analyst	Started	Completed	Analytical Results
Exclusionary Drug Screen by UPLC-ESI-FTMS	215	2	Exactive-1	0.3mL		9/28/2017	10/5/2017	not detected
Solid Phase Extraction (SPE) of Alkaline Drugs from Biological Fluids	203	7	MSD-5, ORBITRAP-3	1.0mL		10/2/2017	10/5/2017	ranitidine identified

Specimen ID **Item 4**

Specimen Type **Blood**

Collected 4/24/217

Inventory: 4/26/2017 Amount: 4mL

SOP Title	SOP	Rev	Instruments	Amount	Analyst	Started	Completed	Analytical Results
Specimen Not Analyzed - See Comments	100b	0	Not Applicable			10/5/2017	10/5/2017	NA

b6 -1

b7C -1

Specimen ID **Item 5**Specimen Type **Urine**

Collected 4/24/217

Inventory: 4/26/2017 Amount: 30mL

SOP Title	SOP	Rev	Instruments	Amount	Analyst	Started	Completed	Analytical Results
Arsenic in Urine and Hair by ICP/MS	320	0	ICPMS-1a	0.2mL		9/25/2017	10/5/2017	no significant elevations
Exclusionary Drug Screen by UPLC-ESI-FTMS	215	2	Exactive-1	0.3mL		9/28/2017	10/5/2017	not detected
Solid Phase Extraction (SPE) of Alkaline Drugs from Biological Fluids	203	7	MSD-5, ORBITRAP-3	1.0mL		10/2/2017	10/5/2017	phenethylamine identified (not reporting), ranitidine identified

b6 -1

b7C -1

ICP-MS Analysis 9/25/2017

2017-00469

Carried out to provide a screen and confirmation of any potentially toxic elements.

A calibration and control scheme was set up using separate lots of standard solutions containing 31 elements.

The backbone of the analysis was based off of TOX320-0 for Arsenic in urine and hair, with expansion of the scope to include other elements. Briefly, 100uL of specimen was diluted to 10ml in 2% nitric acid. Internal standardization was added by 100uL of a 10ug/L indium and gallium in 2% nitric acid. (only indium was used for internal standardization purposes).

An eight point calibration curve from 1-100ug/L was used. One calibrator level was dropped due to an apparent mispipet. Control levels evaluated were 4 and 40ug/L.

The ICP-MS was initially run in the scan (non-collision) mode to effect an overall view of the items 2 and 5 urine samples, as well method performance.

For the heavy metals of interest, the calibration curves and controls are acceptable as a screen. For environmental/nutritional elements (such as Al, Fe, Zn, Mg, etc), the curves are flat and show evidence of contribution from background or interferences. (These elements are not of toxicological interest at this time).

TOX320-0 used as backbone,  
expanded to include  
other elements

barium results  
test reviewed

10/19/17

#### Scan Analysis (No KED)

	Item 2	Item 5	Notes	do KED?
Lithium	nd	elevated at 30ug/L	elevated, see KED follow up.	Y
Boron	Elevated at 700ug/L	Elevated at 700ug/L	Potential inteferent due to 12C spread, see KED reanalysis	Y
Cobalt	nd	nd	No elevation on either sample	
Copper	nd	elevated	Although elevated, not of tox significance.	
Arsenic	nd	150ug/L	>50ug/L potentially of sig., potentially an Ar interference or dietary	Y
Selenium	nd	100ug/L	within normal reference range	
Strontium	nd	250ug/L	elevated over normal reference range; potential sulfur oxide intefer.	Y
Molybdenum	nd	70ug/L	within normal reference range	
Barium	~80ug/L	nd	elevated over normal reference range; a few pot. interferences	Y
Uranium	nd	nd	(does not confirm previous results by outside lab)	Y

#### KED (Kinetic Energy Discrimination) Reanalysis

	Item 2	Item 5	Notes
Lithium	nd	(much reduced signal)	not pursuing
Boron	still n/a due to int.	still n/a due to int.	(no result due to interference)
Arsenic	nd	60ug/L	reduced conc with KED; 60 ug/L unspeciated not uncommon
Strontium	nd	85ug/L	reduced conc with KED; 85 ug/L within normal range; not toxic
Barium	~93ug/L	nd	Elevated.
Uranium	nd	nd	not detected

b6 -1  
b7C -1

9/25/17

# Calibration and Control Scheme

## CALIBRATION

Stock Solution

31 elements at 10ug/mL (10mg/L)

Stock Calibration Solution	HIGH PURITY STANDARDS lot # 529925		10	mg/L
			10	ug/mL

Cal #	Level (ug/L)	Final Vol (mL)	Spike Conc (ug/mL)	Spike Vol (mL)
1	1	50	10	0.005
2	2.5	50	10	0.0125
3	5	50	10	0.025
4	10	50	10	0.05
5	25	50	10	0.125
6	50	50	10	0.25
7	80	50	10	0.4
8	100	50	10	0.5

## CONTROL

Stock Solution

31 elements at 10ug/mL (10mg/L)

Stock Control Solution	HIGH PURITY STANDARDS lot # S17224		10	mg/L
			10	ug/mL

Control #	Level (ug/L)	Final Vol (mL)	Spike Conc (ug/mL)	Spike Vol (mL)
1	1	50	10	0.005
2	2.5	50	10	0.0125
Low	4	100	10	0.04
4	10	50	10	0.05
5	25	50	10	0.125
High	40	100	10	0.4
7	80	50	10	0.4
8	100	50	10	0.5



b6 -1  
b7C -1

# Report

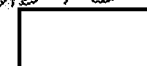
9/26/2017 8:28:30 AM



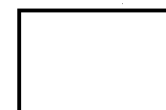
Instrument Name: ICAP Q  
Serial Number: SN02602R

Index	Label	Main Runs	Survey Runs	Start Time	User name
1	blank	1	1	9/25/2017 3:21:21 PM	ICAP-Q\Thermo
2	cal 0	1	1	9/25/2017 3:24:47 PM	ICAP-Q\Thermo
3	Cal 1	1	1	9/25/2017 3:28:14 PM	ICAP-Q\Thermo
4	Cal 2.5	1	1	9/25/2017 3:31:41 PM	ICAP-Q\Thermo
5	Cal 5	1	1	9/25/2017 3:35:08 PM	ICAP-Q\Thermo
6	Cal 10	1	1	9/25/2017 3:38:36 PM	ICAP-Q\Thermo
7	Cal 25	1	1	9/25/2017 3:42:04 PM	ICAP-Q\Thermo
8	Cal 50	1	1	9/25/2017 3:45:33 PM	ICAP-Q\Thermo
9	Cal 80	1	1	9/25/2017 3:49:02 PM	ICAP-Q\Thermo
10	Cal 100	1	1	9/25/2017 3:52:32 PM	ICAP-Q\Thermo
11	blank	1	1	9/25/2017 3:56:03 PM	ICAP-Q\Thermo
12	Control 4 A	1	1	9/25/2017 3:59:35 PM	ICAP-Q\Thermo
13	Control 40 A	1	1	9/25/2017 4:03:06 PM	ICAP-Q\Thermo
14	blank	1	1	9/25/2017 4:06:32 PM	ICAP-Q\Thermo
15	2017-00469 Item 2 A	1	1	9/25/2017 4:09:58 PM	ICAP-Q\Thermo
16	2017-00469 Item 2 B	1	1	9/25/2017 4:13:25 PM	ICAP-Q\Thermo
17	blank	1	1	9/25/2017 4:16:52 PM	ICAP-Q\Thermo
18	2017-00469 Item 5 A	1	1	9/25/2017 4:20:20 PM	ICAP-Q\Thermo
19	2017-00469 Item 5 B	1	1	9/25/2017 4:23:49 PM	ICAP-Q\Thermo
20	blank	1	1	9/25/2017 4:27:18 PM	ICAP-Q\Thermo
21	Control 4 B	1	1	9/25/2017 4:30:48 PM	ICAP-Q\Thermo
22	Control 40 B	1	1	9/25/2017 4:34:18 PM	ICAP-Q\Thermo
23	blank	1	1	9/25/2017 4:37:49 PM	ICAP-Q\Thermo

initial sequence w/ no KED



b6 -1  
b7C -1



b6 -1  
b7C -1

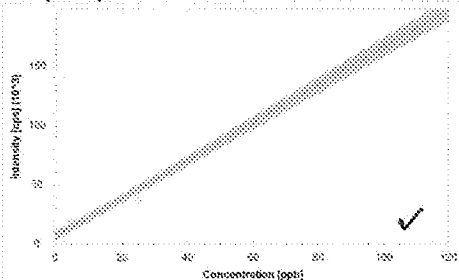
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No. of sweeps	Time per sweep[s]	Time per main run[s]
10	0.34	3.4

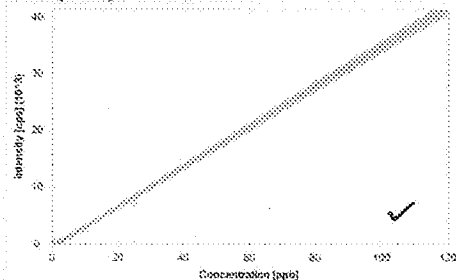
## Calibration Curves:

7Li (STD)



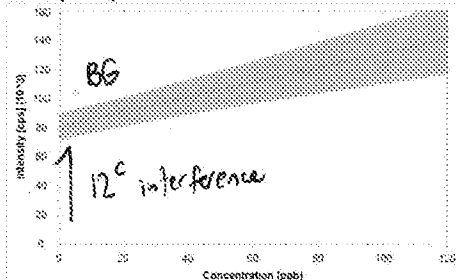
$$f(x) = 1601.1791 \cdot x + 6245.8502$$
$$R^2 = 0.9947$$
$$BEC = 3.901 \text{ ppb}$$
$$LoD = N/A$$

9Be (STD)



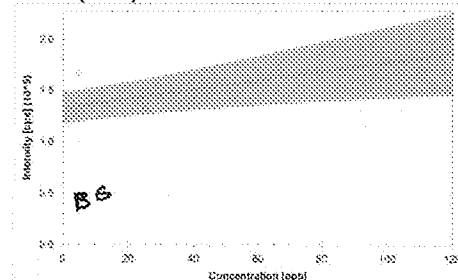
$$f(x) = 353.4740 \cdot x + -548.3653$$
$$R^2 = 0.9980$$
$$BEC = -1.551 \text{ ppb}$$
$$LoD = N/A$$

11B (STD)



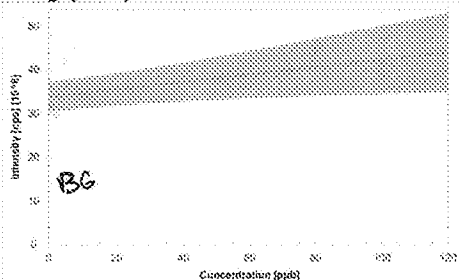
$$f(x) = 508.8149 \cdot x + 81491.3446$$
$$R^2 = 0.7544$$
$$BEC = 160.159 \text{ ppb}$$
$$LoD = N/A$$

23Na (STD)



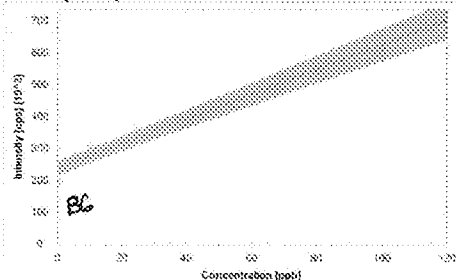
$$f(x) = 4412639.9547 \cdot x + 1335025402.3373$$
$$R^2 = 0.4645$$
$$BEC = 302.546 \text{ ppb}$$
$$LoD = N/A$$

24Mg (STD)



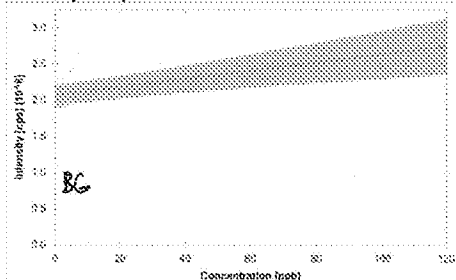
$$f(x) = 84635.7253 \cdot x + 33863824.4974$$
$$R^2 = 0.3853$$
$$BEC = 400.113 \text{ ppb}$$
$$LoD = N/A$$

27Al (STD)



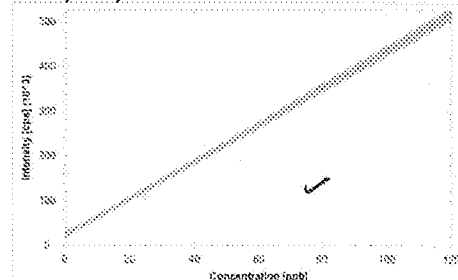
$$f(x) = 3859.7883 \cdot x + 239850.6502$$
$$R^2 = 0.9674$$
$$BEC = 62.141 \text{ ppb}$$
$$LoD = N/A$$

44Ca (STD)



$$f(x) = 5610.8574 \cdot x + 2074058.5992$$
$$R^2 = 0.6042$$
$$BEC = 369.651 \text{ ppb}$$
$$LoD = N/A$$

51V (STD)



$$f(x) = 4127.2332 \cdot x + 22390.9805$$
$$R^2 = 0.9981$$
$$BEC = 5.425 \text{ ppb}$$
$$LoD = N/A$$

not reporting

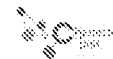
BG = elevated background  
=  $\pm$  y-intercept due to  
environmental and/or interferences

b6 -1  
b7C -1

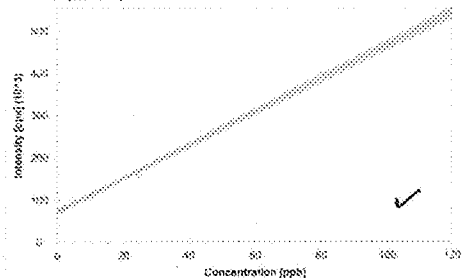
b6 -1  
b7C -1

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52Cr (STD)



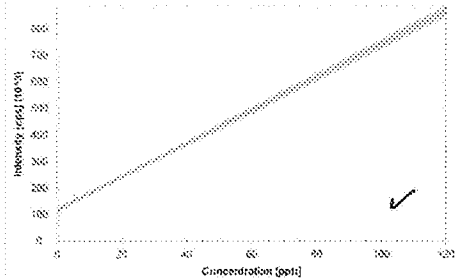
$$f(x) = 3930.6896 * x + 73348.5375$$

$$R^2 = 0.9978$$

$$BEC = 18.660 \text{ ppb}$$

$$LoD = N/A$$

55Mn (STD)



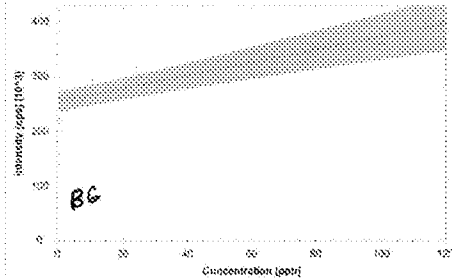
$$f(x) = 6248.1892 * x + 118849.3664$$

$$R^2 = 0.9982$$

$$BEC = 19.021 \text{ ppb}$$

$$LoD = N/A$$

57Fe (STD)



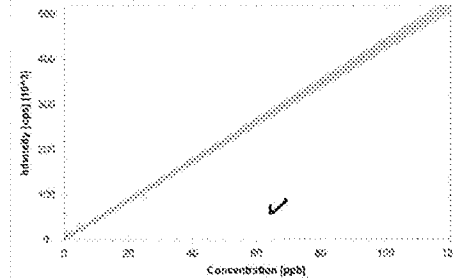
$$f(x) = 1179.6872 * x + 254156.0173$$

$$R^2 = 0.8070$$

$$BEC = 215.444 \text{ ppb}$$

$$LoD = N/A$$

59Co (STD)



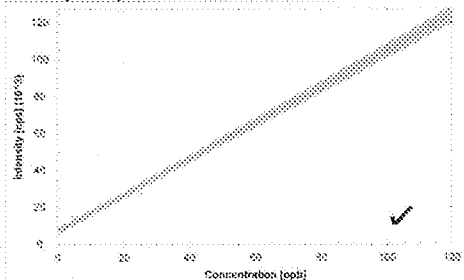
$$f(x) = 4298.0704 * x + 3470.9265$$

$$R^2 = 0.9977$$

$$BEC = 0.808 \text{ ppb}$$

$$LoD = N/A$$

60Ni (STD)



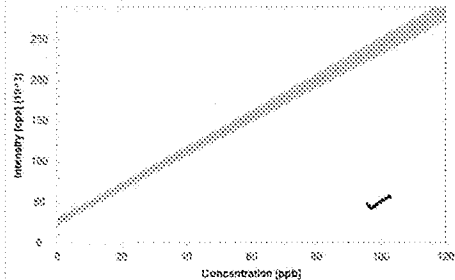
$$f(x) = 977.6450 * x + 7077.3689$$

$$R^2 = 0.9968$$

$$BEC = 7.239 \text{ ppb}$$

$$LoD = N/A$$

63Cu (STD)



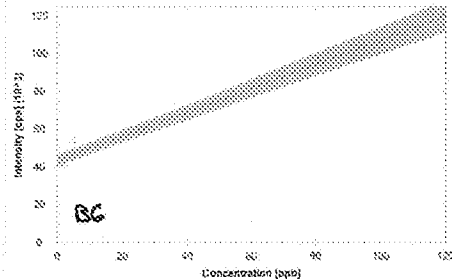
$$f(x) = 2159.4931 * x + 26442.3756$$

$$R^2 = 0.9951$$

$$BEC = 12.245 \text{ ppb}$$

$$LoD = N/A$$

66Zn (STD)



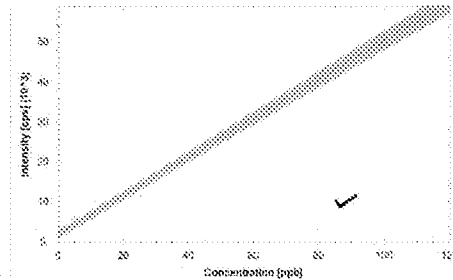
$$f(x) = 631.4763 * x + 43830.5623$$

$$R^2 = 0.9759$$

$$BEC = 69.410 \text{ ppb}$$

$$LoD = N/A$$

75As (STD)



$$f(x) = 482.4881 * x + 1994.6778$$

$$R^2 = 0.9950$$

$$BEC = 4.134 \text{ ppb}$$

$$LoD = N/A$$



b6 -1  
b7C -1

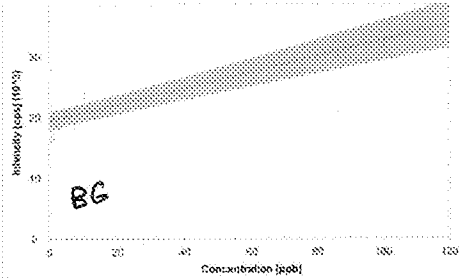
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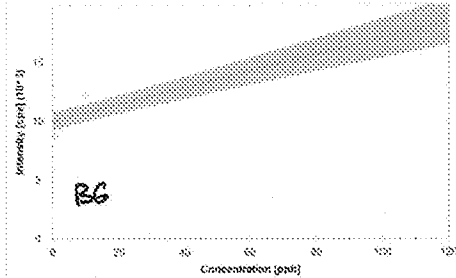


77Se (STD)



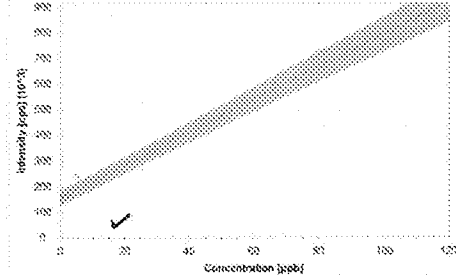
$$f(x) = 133.1352 \cdot x + 19499.2752$$
$$R^2 = 0.8932$$
$$\text{BEC} = 146.462 \text{ ppb}$$
$$\text{LoD} = \text{N/A}$$

82Se (STD)



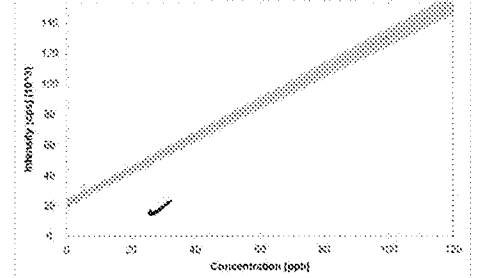
$$f(x) = 70.5288 \cdot x + 10054.5503$$
$$R^2 = 0.9038$$
$$\text{BEC} = 142.560 \text{ ppb}$$
$$\text{LoD} = \text{N/A}$$

88Sr (STD)



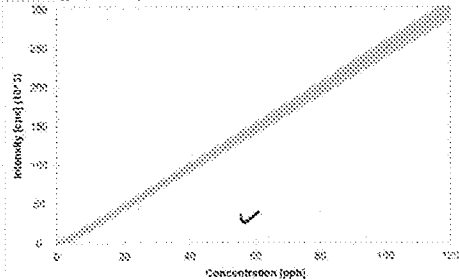
$$f(x) = 6375.9030 \cdot x + 157770.5634$$
$$R^2 = 0.9782$$
$$\text{BEC} = 24.745 \text{ ppb}$$
$$\text{LoD} = \text{N/A}$$

95Mo (STD)



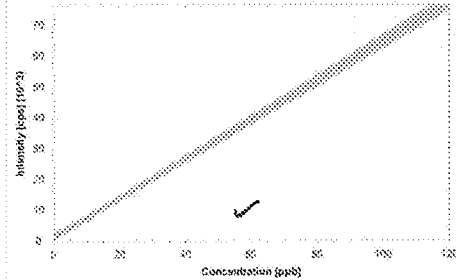
$$f(x) = 1087.3773 \cdot x + 22117.3325$$
$$R^2 = 0.9940$$
$$\text{BEC} = 20.340 \text{ ppb}$$
$$\text{LoD} = \text{N/A}$$

107Ag (STD)



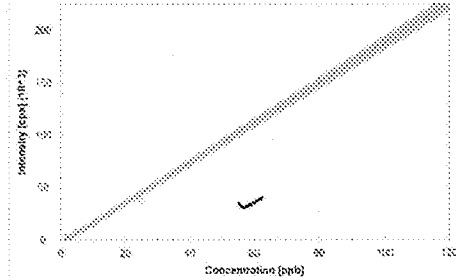
$$f(x) = 2531.7442 \cdot x + -4587.3541$$
$$R^2 = 0.9958$$
$$\text{BEC} = -1.812 \text{ ppb}$$
$$\text{LoD} = \text{N/A}$$

111Cd (STD)



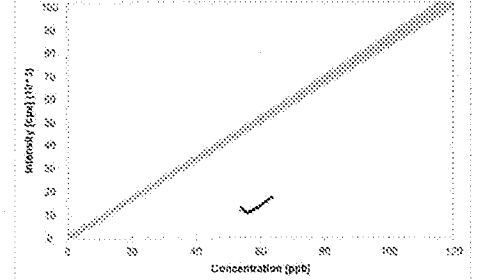
$$f(x) = 636.5706 \cdot x + 1219.0875$$
$$R^2 = 0.9972$$
$$\text{BEC} = 1.915 \text{ ppb}$$
$$\text{LoD} = \text{N/A}$$

121Sb (STD)

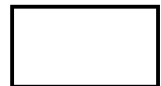


$$f(x) = 1906.0129 \cdot x + -2756.2453$$
$$R^2 = 0.9973$$
$$\text{BEC} = -1.446 \text{ ppb}$$
$$\text{LoD} = \text{N/A}$$

137Ba (STD)



$$f(x) = 860.1990 \cdot x + -173.0299$$
$$R^2 = 0.9975$$
$$\text{BEC} = -0.201 \text{ ppb}$$
$$\text{LoD} = \text{N/A}$$

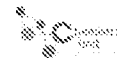


b6 -1  
b7C -1

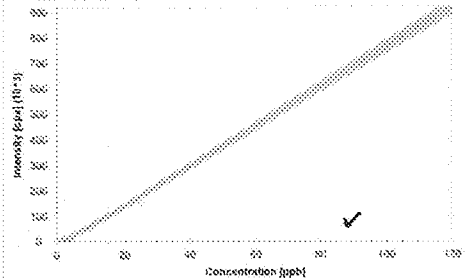


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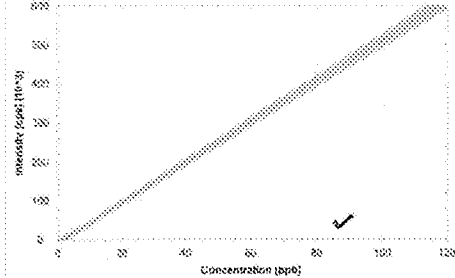


139La (STD)



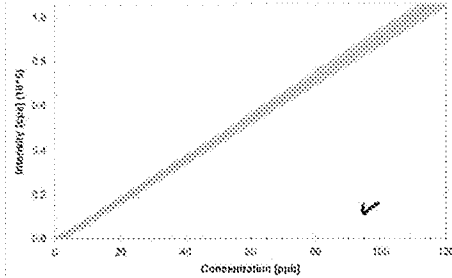
$$f(x) = 7806.2472 * x + -14843.9776$$
$$R^2 = 0.9975$$
$$BEC = -1.902 \text{ ppb}$$
$$LoD = N/A$$

153Eu (STD)



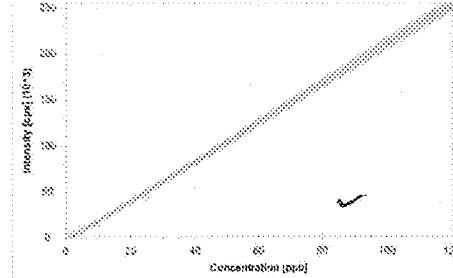
$$f(x) = 5186.7271 * x + -7416.8225$$
$$R^2 = 0.9972$$
$$BEC = -1.430 \text{ ppb}$$
$$LoD = N/A$$

165Ho (STD)



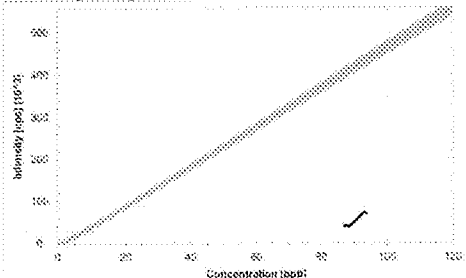
$$f(x) = 9202.7021 * x + -11011.4618$$
$$R^2 = 0.9960$$
$$BEC = -1.197 \text{ ppb}$$
$$LoD = N/A$$

172Yb (STD)



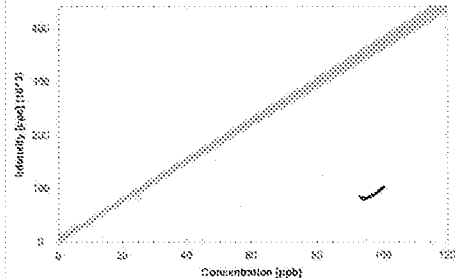
$$f(x) = 2139.5997 * x + -3439.8621$$
$$R^2 = 0.9980$$
$$BEC = -1.608 \text{ ppb}$$
$$LoD = N/A$$

205Tl (STD)



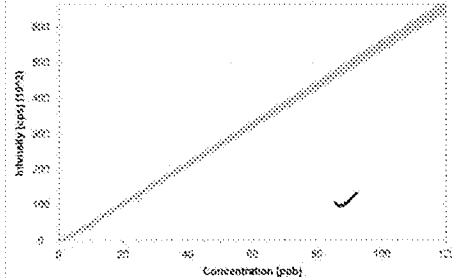
$$f(x) = 4720.0682 * x + -6962.2578$$
$$R^2 = 0.9977$$
$$BEC = -1.475 \text{ ppb}$$
$$LoD = N/A$$

208Pb (STD)



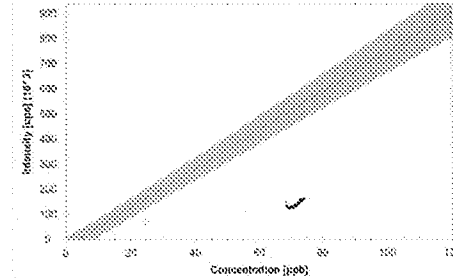
$$f(x) = 3677.0726 * x + 3876.4665$$
$$R^2 = 0.9974$$
$$BEC = 1.054 \text{ ppb}$$
$$LoD = N/A$$

209Bi (STD)



$$f(x) = 5524.7567 * x + -6082.7588$$
$$R^2 = 0.9982$$
$$BEC = -1.101 \text{ ppb}$$
$$LoD = N/A$$

232Th (STD)



$$f(x) = 7757.0376 * x + -28717.4471$$
$$R^2 = 0.9786$$
$$BEC = -3.702 \text{ ppb}$$
$$LoD = N/A$$

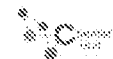


b6 -1  
b7C -1

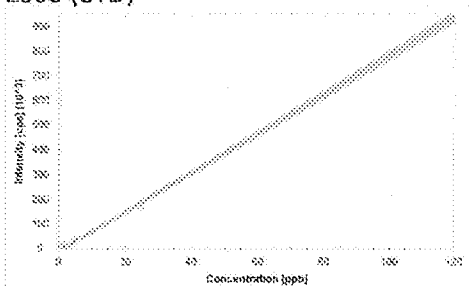
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238U (STD)



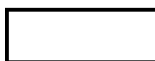
$$f(x) = 7934.4068 * x + -10653.8253$$

$$R^2 = 0.9984$$

$$BEC = -1.343 \text{ ppb}$$

$$LoD = N/A$$

✓



b6 -1

b7C -1

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1.1 kcal  
C<sub>12</sub> in reference



Label	Vial	Rack	7Li (STD)	9Be (STD)	11B (STD)	23Na (STD)	24Mg (STD)
blank	1	1	-3.763 ppb	1.551 ppb	-159.294 ppb	-302.486 ppb	-399.913 ppb
cal 0	2	1	0.897 ppb	1.551 ppb	-40.117 ppb	-105.054 ppb	-151.161 ppb
Cal 1	3	1	2.572 ppb	2.570 ppb	-2.184 ppb	-20.502 ppb	-27.638 ppb
Cal 2.5	4	1	3.691 ppb	3.334 ppb	-15.669 ppb	-34.093 ppb	-49.067 ppb
Cal 5	5	1	7.706 ppb	5.908 ppb	45.357 ppb	77.633 ppb	94.075 ppb
Cal 10	6	1	8.281 ppb	8.625 ppb	-2.496 ppb	9.831 ppb	1.093 ppb
Cal 25	7	1	19.336 ppb	21.813 ppb	9.983 ppb	-3.994 ppb	13.833 ppb
Cal 50	8	1	3.272 ppb	1.580 ppb	26.799 ppb	64.085 ppb	85.364 ppb
Cal 80	9	1	82.534 ppb	81.988 ppb	105.186 ppb	129.314 ppb	132.005 ppb
Cal 100	10	1	99.380 ppb	99.262 ppb	83.324 ppb	65.313 ppb	59.201 ppb
blank	11	1	-3.720 ppb	1.551 ppb	-159.255 ppb	-302.427 ppb	-399.706 ppb
Control 4 A	12	1	7.036 ppb	3.786 ppb	61.630 ppb	158.694 ppb	197.032 ppb
Control 40 A	13	1	35.797 ppb	36.338 ppb	24.795 ppb	32.640 ppb	77.438 ppb
blank	14	1	-3.770 ppb	1.551 ppb	-158.744 ppb	-302.431 ppb	-399.710 ppb
2017-00469 Item 2 A	15	1	0.878 ppb	1.551 ppb	701.590 ppb	-213.337 ppb	-6.376 ppb
2017-00469 Item 2 B	16	1	2.253 ppb	1.551 ppb	790.839 ppb	-200.105 ppb	36.066 ppb
blank	17	1	-3.738 ppb	1.551 ppb	-158.842 ppb	-302.437 ppb	-399.720 ppb
2017-00469 Item 5 A	18	1	27.471 ppb	1.551 ppb	651.557 ppb	681.530 ppb	1,791.315 ppb
2017-00469 Item 5 B	19	1	32.163 ppb	1.551 ppb	792.649 ppb	681.530 ppb	2,270.319 ppb
blank	20	1	-3.589 ppb	1.580 ppb	-157.427 ppb	-300.036 ppb	-397.273 ppb
Control 4 B	21	1	4.848 ppb	3.164 ppb	23.264 ppb	74.109 ppb	53.574 ppb
Control 40 B	22	1	42.245 ppb	39.481 ppb	34.577 ppb	71.183 ppb	61.597 ppb
blank	17	1	-3.782 ppb	1.551 ppb	-159.216 ppb	-302.414 ppb	-399.699 ppb

within  
normal  
levels

Label	27Al (STD)	44Ca (STD)	51V (STD)	52Cr (STD)	55Mn (STD)	57Fe (STD)	59Co (STD)
blank	-37.376 ppb	-311.950 ppb	-3.154 ppb	-9.223 ppb	-11.596 ppb	-128.200 ppb	0.407 ppb
cal 0	-27.584 ppb	-137.285 ppb	1.214 ppb	-3.162 ppb	-7.847 ppb	-89.493 ppb	0.854 ppb
Cal 1	-11.172 ppb	-25.293 ppb	1.479 ppb	1.284 ppb	-1.786 ppb	-30.366 ppb	2.342 ppb
Cal 2.5	-3.512 ppb	-23.283 ppb	3.531 ppb	3.097 ppb	1.878 ppb	-11.090 ppb	3.535 ppb
Cal 5	10.633 ppb	61.641 ppb	6.711 ppb	7.299 ppb	7.443 ppb	12.693 ppb	6.468 ppb
Cal 10	18.785 ppb	7.987 ppb	9.686 ppb	8.895 ppb	11.517 ppb	29.262 ppb	8.771 ppb
Cal 25	31.106 ppb	14.729 ppb	21.267 ppb	21.736 ppb	24.316 ppb	49.643 ppb	21.174 ppb
Cal 50	15.232 ppb	70.517 ppb	5.034 ppb	6.293 ppb	11.450 ppb	55.342 ppb	2.990 ppb
Cal 80	80.372 ppb	114.371 ppb	79.888 ppb	81.976 ppb	80.953 ppb	85.877 ppb	81.221 ppb
Cal 100	97.288 ppb	73.348 ppb	100.938 ppb	99.213 ppb	99.178 ppb	87.480 ppb	99.990 ppb
blank	26.689 ppb	-221.735 ppb	4.394 ppb	3.848 ppb	14.376 ppb	84.435 ppb	3.171 ppb
Control 4 A	27.749 ppb	141.397 ppb	8.534 ppb	9.567 ppb	14.689 ppb	62.768 ppb	5.698 ppb

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Label	27Al (STD)	44Ca (STD)	51V (STD)	52Cr (STD)	55Mn (STD)	57Fe (STD)	59Co (STD)
Control 40 A	51.392 ppb	73.732 ppb	40.543 ppb	40.787 ppb	44.868 ppb	69.371 ppb	37.659 ppb
blank	20.440 ppb	-220.352 ppb	3.898 ppb	2.957 ppb	13.787 ppb	45.390 ppb	3.227 ppb
2017-00469 Item 2 A	20.159 ppb	122.123 ppb	4.297 ppb	10.954 ppb	11.152 ppb	56.269 ppb	3.064 ppb
2017-00469 Item 2 B	25.595 ppb	167.627 ppb	5.360 ppb	11.231 ppb	12.653 ppb	70.237 ppb	3.768 ppb
blank	17.536 ppb	-224.704 ppb	4.460 ppb	2.462 ppb	13.299 ppb	43.963 ppb	3.202 ppb
2017-00469 Item 5 A	38.966 ppb	4,541.836 ppb	12.958 ppb	19.745 ppb	19.717 ppb	205.458 ppb	5.353 ppb
2017-00469 Item 5 B	46.786 ppb	5,549.572 ppb	16.995 ppb	22.910 ppb	26.237 ppb	244.475 ppb	5.861 ppb
blank	27.415 ppb	-211.669 ppb	4.414 ppb	1.991 ppb	13.659 ppb	51.923 ppb	3.330 ppb
Control 4 B	14.382 ppb	66.122 ppb	8.213 ppb	6.414 ppb	10.571 ppb	43.457 ppb	4.695 ppb
Control 40 B	36.675 ppb	64.657 ppb	42.615 ppb	41.383 ppb	42.365 ppb	27.134 ppb	41.031 ppb
blank	4.569 ppb	-243.267 ppb	2.722 ppb	0.547 ppb	6.151 ppb	4.734 ppb	2.480 ppb

Label	60Ni (STD)	63Cu (STD)	66Zn (STD)	75As (STD)	77Se (STD)	82Se (STD)	88Sr (STD)
blank	-3.393 ppb	-9.734 ppb	-51.095 ppb	-3.056 ppb	-94.845 ppb	-80.446 ppb	-24.508 ppb
cal 0	-2.400 ppb	-3.305 ppb	-25.845 ppb	-0.652 ppb	-73.048 ppb	-45.976 ppb	-6.386 ppb
Cal 1	1.509 ppb	1.154 ppb	-3.565 ppb	1.234 ppb	-21.765 ppb	-19.730 ppb	1.987 ppb
Cal 2.5	2.953 ppb	1.460 ppb	-3.835 ppb	3.162 ppb	-6.798 ppb	-7.102 ppb	1.132 ppb
Cal 5	8.174 ppb	9.296 ppb	16.242 ppb	7.371 ppb	10.132 ppb	12.765 ppb	12.957 ppb
Cal 10	9.332 ppb	10.188 ppb	9.818 ppb	9.175 ppb	30.826 ppb	29.937 ppb	5.832 ppb
Cal 25	20.736 ppb	19.947 ppb	23.655 ppb	20.666 ppb	35.792 ppb	29.938 ppb	18.179 ppb
Cal 50	6.751 ppb	4.352 ppb	8.896 ppb	3.328 ppb	47.907 ppb	27.525 ppb	7.718 ppb
Cal 80	79.189 ppb	82.006 ppb	85.947 ppb	84.309 ppb	79.449 ppb	84.302 ppb	88.321 ppb
Cal 100	101.607 ppb	99.450 ppb	95.239 ppb	97.581 ppb	95.863 ppb	93.389 ppb	95.092 ppb
blank	5.727 ppb	-7.408 ppb	-22.511 ppb	1.006 ppb	40.906 ppb	27.241 ppb	-24.262 ppb
Control 4 A	6.577 ppb	8.506 ppb	17.403 ppb	7.185 ppb	48.434 ppb	42.286 ppb	16.318 ppb
Control 40 A	38.534 ppb	35.673 ppb	36.547 ppb	37.268 ppb	77.342 ppb	51.653 ppb	37.299 ppb
blank	6.024 ppb	-7.797 ppb	-25.686 ppb	1.193 ppb	32.027 ppb	20.854 ppb	-24.284 ppb
2017-00469 Item 2 A	5.594 ppb	-0.563 ppb	625.735 ppb	2.914 ppb	41.133 ppb	27.808 ppb	8.829 ppb
2017-00469 Item 2 B	5.789 ppb	0.040 ppb	676.249 ppb	3.722 ppb	59.574 ppb	38.028 ppb	10.500 ppb
blank	31.535 ppb	-8.136 ppb	-25.527 ppb	0.944 ppb	34.361 ppb	14.326 ppb	-24.306 ppb
2017-00469 Item 5 A	10.960 ppb	47.136 ppb	502.303 ppb	148.589 ppb	120.792 ppb	85.439 ppb	256.577 ppb
2017-00469 Item 5 B	13.788 ppb	59.908 ppb	576.376 ppb	174.871 ppb	102.419 ppb	101.908 ppb	297.239 ppb
blank	9.434 ppb	11.314 ppb	-19.654 ppb	2.084 ppb	27.359 ppb	21.422 ppb	-23.880 ppb
Control 4 B	5.830 ppb	5.189 ppb	6.654 ppb	5.899 ppb	27.816 ppb	23.692 ppb	7.952 ppb
Control 40 B	40.998 ppb	40.139 ppb	35.416 ppb	42.022 ppb	42.714 ppb	43.137 ppb	45.424 ppb
blank	29.524 ppb	-8.242 ppb	-29.542 ppb	0.260 ppb	9.229 ppb	7.373 ppb	-24.309 ppb

elevated compared to item 2, but not statistically significant

not a significant concentration finding

MMS has actionable > 200 ppb/L - see article

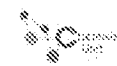
within REED limits see article

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# Report

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*Mo, Pb, Cd, In, Sb, Ba, La  
min lower toxicity  
Airmax range*



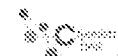
	<i>Item 5 detected</i>	<i>n.d.</i>	<i>n.d.</i>	<i>n/a</i>	<i>n.d.</i>	<i>Item 2 detected</i>	<i>n.d.</i>
Label	95Mo (STD)	107Ag (STD)	111Cd (STD)	115In (STD)	121Sb (STD)	137Ba (STD)	139La (STD)
blank	-17.461 ppb	2.025 ppb	-0.721 ppb	19.999 %	1.792 ppb	0.875 ppb	1.928 ppb
cal 0	-7.310 ppb	2.163 ppb	-0.564 ppb	74.329 %	1.829 ppb	1.108 ppb	1.941 ppb
Cal 1	-0.366 ppb	3.191 ppb	1.651 ppb	100.000 %	2.810 ppb	2.689 ppb	2.725 ppb
Cal 2.5	1.753 ppb	4.285 ppb	3.003 ppb	101.036 %	3.807 ppb	3.643 ppb	3.877 ppb
Cal 5	9.837 ppb	6.428 ppb	6.711 ppb	106.542 %	6.038 ppb	6.096 ppb	6.245 ppb
Cal 10	9.661 ppb	8.591 ppb	8.959 ppb	97.700 %	8.638 ppb	8.050 ppb	8.328 ppb
Cal 25	21.054 ppb	19.766 ppb	21.726 ppb	90.255 %	20.877 ppb	21.666 ppb	21.135 ppb
Cal 50	6.315 ppb	2.657 ppb	2.468 ppb	103.044 %	2.049 ppb	1.631 ppb	1.969 ppb
Cal 80	83.756 ppb	79.644 ppb	83.162 ppb	104.436 %	81.324 ppb	82.138 ppb	80.852 ppb
Cal 100	97.806 ppb	101.596 ppb	98.288 ppb	104.632 %	100.005 ppb	99.218 ppb	100.338 ppb
blank	-7.798 ppb	2.669 ppb	4.024 ppb	24.815 %	2.055 ppb	1.259 ppb	1.985 ppb
Control 4 A	11.837 ppb	4.819 ppb	6.303 ppb	140.109 %	4.154 ppb	4.050 ppb	4.221 ppb
Control 40 A	35.101 ppb	36.682 ppb	38.405 ppb	103.238 %	37.685 ppb	35.224 ppb	37.919 ppb
blank	-9.474 ppb	2.776 ppb	2.924 ppb	23.232 %	2.154 ppb	1.352 ppb	1.971 ppb
2017-00469 Item 2 A	-4.060 ppb	2.582 ppb	3.631 ppb	132.719 %	3.419 ppb	74.818 ppb	1.987 ppb
2017-00469 Item 2 B	-1.656 ppb	2.681 ppb	3.333 ppb	140.467 %	3.592 ppb	90.287 ppb	1.989 ppb
blank	-7.909 ppb	2.638 ppb	3.521 ppb	20.581 %	2.128 ppb	1.120 ppb	1.973 ppb
2017-00469 Item 5 A	67.397 ppb	2.717 ppb	5.061 ppb	129.285 %	2.275 ppb	5.654 ppb	1.994 ppb
2017-00469 Item 5 B	84.154 ppb	2.930 ppb	6.224 ppb	155.220 %	2.160 ppb	5.841 ppb	1.999 ppb
blank	-8.010 ppb	2.582 ppb	3.678 ppb	23.102 %	2.118 ppb	1.724 ppb	1.969 ppb
Control 4 B	7.117 ppb	4.372 ppb	4.700 ppb	110.622 %	3.954 ppb	3.689 ppb	3.852 ppb
Control 40 B	39.667 ppb	46.673 ppb	45.191 ppb	105.666 %	44.626 ppb	43.500 ppb	44.065 ppb
blank	-10.680 ppb	2.428 ppb	2.610 ppb	21.389 %	2.039 ppb	1.108 ppb	1.950 ppb

	<i>n.d.</i>	<i>n.d.</i>	<i>n.d.</i>	<i>n.d.</i>	<i>n.d.</i>	<i>n.d.</i>	<i>n.d.</i>
Label	153Eu (STD)	165Ho (STD)	172Yb (STD)	205Tl (STD)	208Pb (STD)	209Bi (STD)	232Th (STD)
blank	1.524 ppb	1.210 ppb	1.608 ppb	1.484 ppb	0.820 ppb	1.731 ppb	3.705 ppb
cal 0	1.478 ppb	1.206 ppb	1.617 ppb	1.524 ppb	1.084 ppb	1.773 ppb	3.702 ppb
Cal 1	2.379 ppb	2.118 ppb	2.468 ppb	2.558 ppb	2.341 ppb	2.473 ppb	4.504 ppb
Cal 2.5	3.515 ppb	3.434 ppb	3.655 ppb	3.976 ppb	3.466 ppb	3.805 ppb	5.912 ppb
Cal 5	5.807 ppb	5.745 ppb	6.480 ppb	6.297 ppb	6.294 ppb	6.177 ppb	7.940 ppb
Cal 10	8.271 ppb	8.171 ppb	8.230 ppb	8.053 ppb	8.568 ppb	8.329 ppb	10.390 ppb
Cal 25	22.074 ppb	22.374 ppb	21.863 ppb	21.490 ppb	21.395 ppb	21.919 ppb	12.348 ppb
Cal 50	1.536 ppb	1.216 ppb	1.608 ppb	1.549 ppb	1.144 ppb	1.523 ppb	3.839 ppb
Cal 80	83.151 ppb	84.450 ppb	79.806 ppb	80.853 ppb	82.467 ppb	79.829 ppb	77.744 ppb
Cal 100	98.305 ppb	97.207 ppb	100.999 ppb	100.273 ppb	98.969 ppb	100.968 ppb	104.661 ppb
blank	1.550 ppb	1.215 ppb	1.626 ppb	1.481 ppb	2.143 ppb	1.910 ppb	4.150 ppb

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# Report

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Label	153Eu (STD)	165Ho (STD)	172Yb (STD)	205Tl (STD)	208Pb (STD)	209Bi (STD)	232Th (STD)
Control 4 A	3.625 ppb	3.558 ppb	3.912 ppb	3.917 ppb	3.327 ppb	1.583 ppb	6.036 ppb
Control 40 A	37.190 ppb	38.335 ppb	38.823 ppb	36.710 ppb	37.851 ppb	1.521 ppb	38.200 ppb
blank	1.517 ppb	1.224 ppb	1.608 ppb	1.477 ppb	1.724 ppb	1.445 ppb	3.908 ppb
2017-00469 Item 2 A	1.548 ppb	1.217 ppb	1.622 ppb	1.553 ppb	1.530 ppb	1.365 ppb	3.863 ppb
2017-00469 Item 2 B	1.540 ppb	1.212 ppb	1.626 ppb	1.570 ppb	1.819 ppb	1.383 ppb	3.798 ppb
blank	1.515 ppb	1.210 ppb	1.622 ppb	1.484 ppb	1.411 ppb	1.345 ppb	3.769 ppb
2017-00469 Item 5 A	1.571 ppb	1.220 ppb	1.626 ppb	1.712 ppb	2.785 ppb	1.409 ppb	3.779 ppb
2017-00469 Item 5 B	1.559 ppb	1.219 ppb	1.640 ppb	1.774 ppb	2.195 ppb	1.389 ppb	3.777 ppb
blank	1.519 ppb	1.208 ppb	1.617 ppb	1.488 ppb	1.353 ppb	1.268 ppb	3.746 ppb
Control 4 B	3.490 ppb	3.127 ppb	3.660 ppb	3.609 ppb	3.104 ppb	1.289 ppb	5.530 ppb
Control 40 B	41.621 ppb	46.545 ppb	42.992 ppb	47.992 ppb	44.206 ppb	1.286 ppb	43.650 ppb
blank	1.507 ppb	1.215 ppb	1.617 ppb	1.486 ppb	1.465 ppb	1.306 ppb	3.917 ppb

Label	238U (STD)
blank	1.359 ppb
cal 0	1.363 ppb
Cal 1	2.277 ppb
Cal 2.5	3.696 ppb
Cal 5	6.119 ppb
Cal 10	8.597 ppb
Cal 25	22.244 ppb
Cal 50	1.348 ppb
Cal 80	79.183 ppb
Cal 100	101.385 ppb
blank	1.359 ppb
Control 4 A	3.705 ppb
Control 40 A	36.011 ppb
blank	1.354 ppb
2017-00469 Item 2 A	1.377 ppb
2017-00469 Item 2 B	1.368 ppb
blank	1.345 ppb
2017-00469 Item 5 A	1.363 ppb
2017-00469 Item 5 B	1.362 ppb
blank	1.344 ppb
Control 4 B	3.316 ppb
Control 40 B	43.366 ppb
blank	1.349 ppb

not elevated



b6 -1  
b7C -1

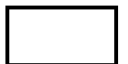
2017-00469 1027-2017

# Report

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2017-00469 1027-26.1



b6 -1  
b7C -1

# Method Summary

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## Method Summary:

Isotope	Mode	Dwell time (s)	# of Channels	Spacing	Resolution	Internal Standard
7Li (STD)	STD	0.01	1	0.1	Normal	
9Be (STD)	STD	0.01	1	0.1	Normal	
11B (STD)	STD	0.01	1	0.1	Normal	
23Na (STD)	STD	0.01	1	0.1	Normal	
24Mg (STD)	STD	0.01	1	0.1	Normal	
27Al (STD)	STD	0.01	1	0.1	Normal	
44Ca (STD)	STD	0.01	1	0.1	Normal	
51V (STD)	STD	0.01	1	0.1	Normal	
52Cr (STD)	STD	0.01	1	0.1	Normal	
55Mn (STD)	STD	0.01	1	0.1	Normal	
57Fe (STD)	STD	0.01	1	0.1	Normal	
59Co (STD)	STD	0.01	1	0.1	Normal	
60Ni (STD)	STD	0.01	1	0.1	Normal	
63Cu (STD)	STD	0.01	1	0.1	Normal	
66Zn (STD)	STD	0.01	1	0.1	Normal	
75As (STD)	STD	0.01	1	0.1	Normal	
77Se (STD)	STD	0.01	1	0.1	Normal	
82Se (STD)	STD	0.01	1	0.1	Normal	
88Sr (STD)	STD	0.01	1	0.1	Normal	
95Mo (STD)	STD	0.01	1	0.1	Normal	
107Ag (STD)	STD	0.01	1	0.1	Normal	
111Cd (STD)	STD	0.01	1	0.1	Normal	
115In (STD)	STD	0.01	1	0.1	Normal	
121Sb (STD)	STD	0.01	1	0.1	Normal	
137Ba (STD)	STD	0.01	1	0.1	Normal	
139La (STD)	STD	0.01	1	0.1	Normal	
153Eu (STD)	STD	0.01	1	0.1	Normal	
165Ho (STD)	STD	0.01	1	0.1	Normal	
172Yb (STD)	STD	0.01	1	0.1	Normal	
205Tl (STD)	STD	0.01	1	0.1	Normal	
208Pb (STD)	STD	0.01	1	0.1	Normal	
209Bi (STD)	STD	0.01	1	0.1	Normal	
232Th (STD)	STD	0.01	1	0.1	Normal	
238U (STD)	STD	0.01	1	0.1	Normal	

No. of sweeps	Time per sweep[s]	Time per main run[s]	Order of modes
10	0.34	3.4	STD



b6 -1  
b7C -1



# Report

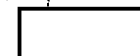
9/26/2017 12:50:21 PM



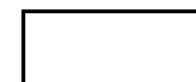
Instrument Name: Serial Number:  
ICAP Q SN02602R

Index	Label	Main Runs	Survey Runs	Start Time	User name
1	blank	3	1	9/26/2017 10:35:49 AM	ICAP-Q\Thermo
2	cal 0	3	1	9/26/2017 10:39:33 AM	ICAP-Q\Thermo
3	Cal 1	3	1	9/26/2017 10:43:18 AM	ICAP-Q\Thermo
4	Cal 2.5	3	1	9/26/2017 10:47:04 AM	ICAP-Q\Thermo
5	Cal 5	3	1	9/26/2017 10:50:50 AM	ICAP-Q\Thermo
6	Cal 10	3	1	9/26/2017 10:54:37 AM	ICAP-Q\Thermo
7	Cal 25	3	1	9/26/2017 10:58:24 AM	ICAP-Q\Thermo
8	Cal 50	3	1	9/26/2017 11:02:12 AM	ICAP-Q\Thermo
9	Cal 80	3	1	9/26/2017 11:06:00 AM	ICAP-Q\Thermo
10	Cal 100	3	1	9/26/2017 11:09:49 AM	ICAP-Q\Thermo
11	blank	3	1	9/26/2017 11:13:38 AM	ICAP-Q\Thermo
12	Control 4 A	3	1	9/26/2017 11:17:28 AM	ICAP-Q\Thermo
13	Control 40 A	3	1	9/26/2017 11:21:19 AM	ICAP-Q\Thermo
14	blank	3	1	9/26/2017 11:25:03 AM	ICAP-Q\Thermo
15	2017-00469 Item 2 A	3	1	9/26/2017 11:28:48 AM	ICAP-Q\Thermo
16	2017-00469 Item 2 B	3	1	9/26/2017 11:32:34 AM	ICAP-Q\Thermo
17	blank	3	1	9/26/2017 11:36:20 AM	ICAP-Q\Thermo
18	2017-00469 Item 5 A	3	1	9/26/2017 11:40:07 AM	ICAP-Q\Thermo
19	2017-00469 Item 5 B	3	1	9/26/2017 11:43:54 AM	ICAP-Q\Thermo
20	blank	3	1	9/26/2017 11:47:42 AM	ICAP-Q\Thermo
21	Control 4 B	3	1	9/26/2017 11:51:31 AM	ICAP-Q\Thermo
22	Control 40 B	3	1	9/26/2017 11:55:20 AM	ICAP-Q\Thermo
23	blank	3	1	9/26/2017 11:59:10 AM	ICAP-Q\Thermo

collision cell  
ready

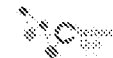


b6 -1  
b7C -1



# Report

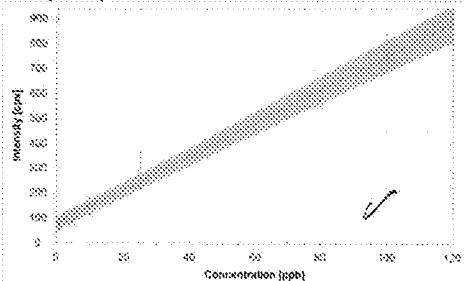
9/26/2017 12:50:21 PM



No. of sweeps	Time per sweep[s]	Time per main run[s]
10	0.08	0.8

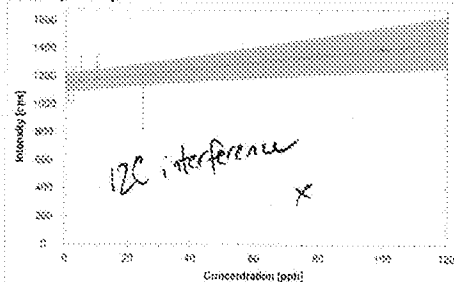
## Calibration Curves:

7Li (KED)



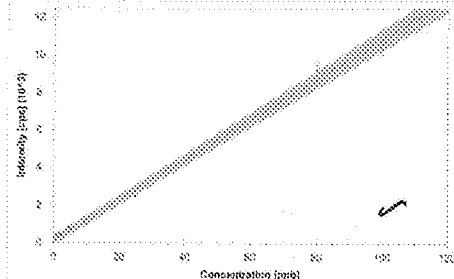
$$f(x) = 6.7263 \cdot x + 79.0544$$
$$R^2 = 0.9826$$
$$\text{BEC} = 11.753 \text{ ppb}$$
$$\text{LoD} = \text{N/A}$$

11B (KED)



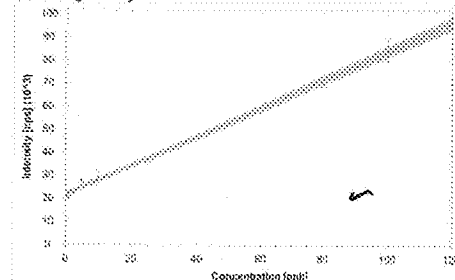
$$f(x) = 2.4103 \cdot x + 1155.4931$$
$$R^2 = 0.5462$$
$$\text{BEC} = 479.403 \text{ ppb}$$
$$\text{LoD} = \text{N/A}$$

75As (KED)



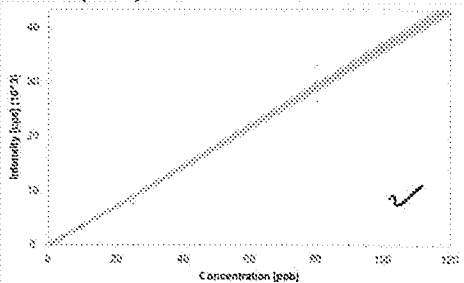
$$f(x) = 106.8231 \cdot x + 163.8325$$
$$R^2 = 0.9943$$
$$\text{BEC} = 1.534 \text{ ppb}$$
$$\text{LoD} = \text{N/A}$$

88Sr (KED)



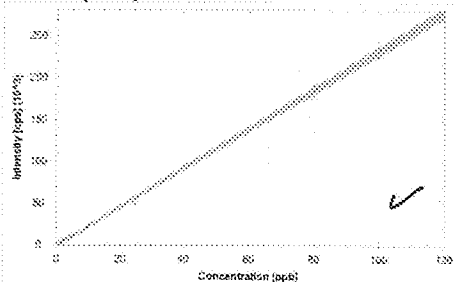
$$f(x) = 620.4407 \cdot x + 21932.5277$$
$$R^2 = 0.9967$$
$$\text{BEC} = 35.350 \text{ ppb}$$
$$\text{LoD} = \text{N/A}$$

137Ba (KED)



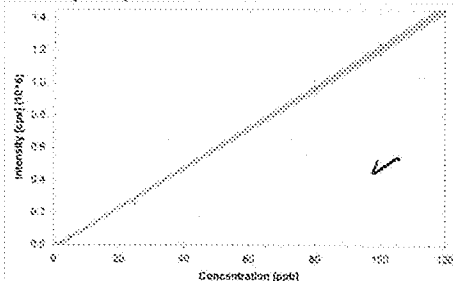
$$f(x) = 366.7477 \cdot x + -214.6697$$
$$R^2 = 0.9983$$
$$\text{BEC} = -0.585 \text{ ppb}$$
$$\text{LoD} = \text{N/A}$$

138Ba (KED)



$$f(x) = 2330.3060 \cdot x + -891.6872$$
$$R^2 = 0.9986$$
$$\text{BEC} = -0.383 \text{ ppb}$$
$$\text{LoD} = \text{N/A}$$

238U (KED)



$$f(x) = 12293.1490 \cdot x + -15536.5444$$
$$R^2 = 0.9990$$
$$\text{BEC} = -1.264 \text{ ppb}$$
$$\text{LoD} = \text{N/A}$$



b6 -1  
b7C -1

# Report

9/26/2017 12:50:21 PM



Label	7Li (KED) [ppb]	11B (KED) [ppb]	75As (KED) [ppb]	88Sr (KED) [ppb]
blank	-11.257	-476.637	-1.534	-35.189
cal 0	-1.346	-13.319	0.651	-0.263
Cal 1	-1.346	-10.553	1.244	-1.645
Cal 2.5	5.096	-7.787	2.710	1.794
Cal 5	0.636	42.006	5.488	8.953
Cal 10	10.548	50.304	10.137	11.017
Cal 25	31.857	-45.130	22.090	23.740
Cal 50	-3.328	7.426	0.651	2.289
Cal 80	71.504	93.181	85.747	77.906
Cal 100	105.204	101.480	96.084	101.735
blank	-11.257	-476.637	-1.502	-35.130
Control 4 A	0.636	-14.702	3.490	4.808
Control 40 A	41.769	22.642	43.253	42.412
blank	-11.257	-476.637	-1.534	-35.124
2017-00469 Item 2 A	-4.319	1,310.479	0.432	1.013
2017-00469 Item 2 B	-8.780	1,459.891	0.807	2.240
blank	-11.257	-475.254	-1.534	-35.167
2017-00469 Item 5 A	1.132	266.075	60.205	91.655
2017-00469 Item 5 B	8.070	217.663	59.019	81.419
blank	-11.257	-473.871	-1.534	-35.157
Control 4 B	1.132	-11.937	3.241	6.241
Control 40 B	39.787	-13.319	37.447	41.226
blank	-11.753	-479.403	-1.534	-35.140

Label	115In (KED) [%]	137Ba (KED) [ppb]	138Ba (KED) [ppb]	238U (KED) [ppb]
blank	70.521	0.740	0.557	1.399
cal 0	117.642	1.503	1.201	1.284
Cal 1	100.000	1.940	1.911	2.039
Cal 2.5	101.760	3.321	3.531	3.191
Cal 5	109.260	5.294	5.466	5.418
Cal 10	104.584	9.885	10.156	9.672

# Report

9/26/2017 12:50:21 PM



Label	115In (KED) [%]	137Ba (KED) [ppb]	138Ba (KED) [ppb]	238U (KED) [ppb]
Cal 25	102.369	21.888	21.821	22.291
Cal 50	112.692	1.240	1.188	1.270
Cal 80	111.478	82.141	79.476	81.135
Cal 100	103.067	99.032	101.141	99.754
blank	14.228	0.776	0.613	1.291
Control 4 A	101.670	3.158	3.140	3.235
Control 40 A	109.139	41.019	42.255	40.091
blank	12.226	0.803	0.597	1.269
2017-00469 Item 2 A	120.677	81.258	91.487	1.288
2017-00469 Item 2 B	111.811	84.611	95.385	1.291
blank	11.619	0.703	0.577	1.268
2017-00469 Item 5 A	99.119	2.349	2.331	1.268
2017-00469 Item 5 B	104.553	2.312	2.182	1.269
blank	10.739	0.913	0.836	1.266
Control 4 B	112.661	2.976	3.393	3.132
Control 40 B	110.597	34.833	41.819	36.922
blank	11.649	0.713	0.593	1.268

(55)

Will use <sup>138</sup>Ba average:

$$\frac{(91 + 95)}{2} = 93 \mu\text{g/L}$$



$\bar{x} = 2.2 \mu\text{g/mL}$

b6 -1  
b7C -1

2017-00469 1027-2017

# Report

9/26/2017 12:50:21 PM

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2017-00469 1027-2017



b6 -1  
b7C -1

# Intensities

9/26/2017 12:34:34 PM



Instrument Name: Serial Number:  
ICAP Q SN02602R

Labbook: Labbook Path:  
multielement urine screen KED.imexp

b7E -2

Analysis index: 14 Analysis started at: 9/26/2017 11:25:03 AM  
Analysis label: blank User name: ICAP-Q\Thermo

Category	7Li (KED)	11B (KED)	75As (KED)	88Sr (KED)	115In (KED)	137Ba (KED)	138Ba (KED)	238U (KED)
Intensity average	3 cps	7 cps	0 cps	140 cps	1,343 cps	80 cps	500 cps	60 cps
Intensity per Run 1	0 cps	0 cps	0 cps	60 cps	1,350 cps	70 cps	450 cps	90 cps
Intensity per Run 2	0 cps	0 cps	0 cps	120 cps	1,310 cps	110 cps	340 cps	30 cps
Intensity per Run 3	10 cps	20 cps	0 cps	240 cps	1,370 cps	60 cps	710 cps	60 cps
Intensity RSD	173.2 %	173.2 %		65.5 %	2.3 %	33.1 %	38.0 %	50.0 %

2017-08469 1027-2017



b6 -1  
b7C -1

# Intensities

9/26/2017 12:34:34 PM



Instrument Name: Serial Number:  
ICAP-Q SN02602R

Labbook: Labbook Path:  
multielement urine screen KED.imexp

b7E -2

Analysis Index: 15 Analysis started at: 9/26/2017 11:28:48 AM  
Analysis label: 2017-00469 Item 2 A User name: ICAP-Q\Thermo

Category	7Li (KED)	11B (KED)	75As (KED)	88Sr (KED)	115In (KED)	137Ba (KED)	138Ba (KED)	238U (KED)
Intensity average	50 cps	4,314 cps	210 cps	22,561 cps	13,261 cps	29,587 cps	212,300 cps	300 cps
Intensity per Run 1	40 cps	4,141 cps	160 cps	22,952 cps	13,077 cps	28,303 cps	208,123 cps	270 cps
Intensity per Run 2	50 cps	4,431 cps	240 cps	22,060 cps	12,967 cps	31,682 cps	209,761 cps	180 cps
Intensity per Run 3	60 cps	4,371 cps	230 cps	22,671 cps	13,738 cps	28,774 cps	219,016 cps	450 cps
Intensity RSD	20.0 %	3.5 %	20.8 %	2.0 %	3.1 %	6.2 %	2.8 %	45.8 %

2017-00469 1027-2017



b6 -1  
b7C -1

# Intensities

9/26/2017 12:34:34 PM



Instrument Name: Serial Number:  
ICAP Q SN02602R

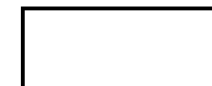
Labbook: Labbook Path:  
multielement urine screen KED.imexp

b7E -2

Analysis index: 16 Analysis started at: 9/26/2017 11:32:34 AM  
Analysis label: 2017-00469 Item 2 B User name: ICAP-Q\Thermo

Category	7Li (KED)	11B (KED)	75As (KED)	88Sr (KED)	115In (KED)	137Ba (KED)	138Ba (KED)	238U (KED)
Intensity average	20 cps	4,674 cps	250 cps	23,322 cps	12,286 cps	30,816 cps	221,385 cps	330 cps
Intensity per Run 1	20 cps	4,561 cps	230 cps	23,513 cps	12,737 cps	32,945 cps	219,722 cps	310 cps
Intensity per Run 2	40 cps	4,631 cps	220 cps	21,599 cps	11,566 cps	28,634 cps	217,062 cps	260 cps
Intensity per Run 3	0 cps	4,831 cps	300 cps	24,855 cps	12,557 cps	30,870 cps	227,373 cps	420 cps
Intensity RSD	100.0 %	3.0 %	17.4 %	7.0 %	5.1 %	7.0 %	2.4 %	24.8 %

2017-00469 1027-2017



b6 -1  
b7C -1



# Intensities

9/26/2017 12:34:34 PM



Instrument Name: Serial Number:  
ICAP Q SN02602R

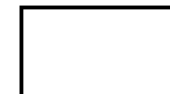
Labbook: Labbook Path:  
multielement urine screen KED.imexp

b7E -2

Analysis Index: 17 Analysis started at: 9/26/2017 11:36:20 AM  
Analysis label: blank User name: ICAP-Q\Thermo

Category	7Li (KED)	11B (KED)	75As (KED)	88Sr (KED)	115In (KED)	137Ba (KED)	138Ba (KED)	238U (KED)
Intensity average	3 cps	10 cps	0 cps	113 cps	1,277 cps	43 cps	453 cps	50 cps
Intensity per Run 1	0 cps	0 cps	0 cps	90 cps	1,180 cps	80 cps	500 cps	50 cps
Intensity per Run 2	0 cps	20 cps	0 cps	150 cps	1,280 cps	20 cps	410 cps	40 cps
Intensity per Run 3	10 cps	10 cps	0 cps	100 cps	1,370 cps	30 cps	450 cps	60 cps
Intensity RSD	173.2 %	100.0 %		28.4 %	7.4 %	74.2 %	9.9 %	20.0 %

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b6 -1  
b7C -1

# Intensities

9/26/2017 12:34:34 PM



Instrument Name: Serial Number:  
ICAP Q SN02602R

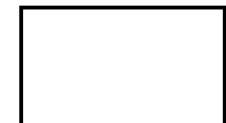
Labbook: Labbook Path:  
multielement urine screen KED.imexp

b7E -2

Analysis index: 18 Analysis started at: 9/26/2017 11:40:07 AM  
Analysis label: 2017-00469 Item 5 A User name: ICAP-Q\Thermo

Category	7Li (KED)	11B (KED)	75As (KED)	88Sr (KED)	115In (KED)	137Ba (KED)	138Ba (KED)	238U (KED)
Intensity average	87 cps	1,797 cps	6,595 cps	78,799 cps	10,892 cps	647 cps	4,541 cps	53 cps
Intensity per Run 1	40 cps	1,700 cps	6,652 cps	75,440 cps	11,095 cps	670 cps	4,181 cps	60 cps
Intensity per Run 2	110 cps	1,870 cps	6,322 cps	77,144 cps	10,765 cps	610 cps	4,211 cps	40 cps
Intensity per Run 3	110 cps	1,820 cps	6,812 cps	83,813 cps	10,815 cps	660 cps	5,231 cps	60 cps
Intensity RSD	46.6 %	4.9 %	3.8 %	5.6 %	1.6 %	5.0 %	13.2 %	21.7 %

2017-00469 1027-2017



b6 -1  
b7C -1

# Intensities

9/26/2017 12:34:34 PM



Instrument Name: Serial Number:  
ICAP Q SN02602R

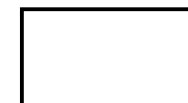
Labbook: Labbook Path:  
multielement urine screen KED.imexp

b7E -2

Analysis index: 19 Analysis started at: 9/26/2017 11:43:54 AM  
Analysis label: 2017-00469 Item 5 B User name: ICAP-Q\Thermo

Category	7Li (KED)	11B (KED)	75As (KED)	88Sr (KED)	115In (KED)	137Ba (KED)	138Ba (KED)	238U (KED)
Intensity average	133 cps	1,680 cps	6,468 cps	72,448 cps	11,489 cps	633 cps	4,194 cps	60 cps
Intensity per Run 1	140 cps	1,640 cps	6,472 cps	66,732 cps	11,886 cps	630 cps	4,301 cps	70 cps
Intensity per Run 2	120 cps	1,550 cps	6,322 cps	76,779 cps	10,475 cps	580 cps	3,811 cps	50 cps
Intensity per Run 3	140 cps	1,850 cps	6,612 cps	73,834 cps	12,106 cps	690 cps	4,471 cps	60 cps
Intensity RSD	8.7 %	9.2 %	2.2 %	7.1 %	7.7 %	8.7 %	8.2 %	16.7 %

2017-00469 1027-26.2



b6 -1  
b7C -1

# Intensities

9/26/2017 12:34:34 PM



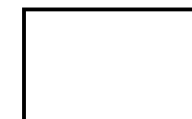
Instrument Name: Serial Number:  
ICAP Q SN02602R

Labbook: Labbook Path:  
multielement urine screen KED.imexp

b7E -2

Analysis index: 20 Analysis started at: 9/26/2017 11:47:42 AM  
Analysis label: blank User name: ICAP-Q\Thermo

Category	7Li (KED)	11B (KED)	75As (KED)	86Sr (KED)	115In (KED)	137Ba (KED)	138Ba (KED)	238U (KED)
Intensity average	3 cps	13 cps	0 cps	120 cps	1,180 cps	120 cps	1,057 cps	27 cps
Intensity per Run 1	0 cps	0 cps	0 cps	130 cps	970 cps	120 cps	1,080 cps	10 cps
Intensity per Run 2	10 cps	0 cps	0 cps	120 cps	1,370 cps	130 cps	1,150 cps	30 cps
Intensity per Run 3	0 cps	40 cps	0 cps	110 cps	1,200 cps	110 cps	940 cps	40 cps
Intensity RSD	173.2 %	173.2 %		8.3 %	17.0 %	8.3 %	10.1 %	57.3 %



b6 -1  
b7C -1

2017-00469 1027-2017

# Intensities

9/26/2017 12:34:34 PM



Instrument Name: Serial Number:  
ICAP-Q SN02602R

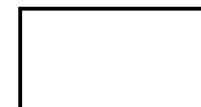
Labbook: Labbook Path:  
multielement urine screen KED.imexp

b7E -2

Analysis Index: 21 Analysis started at: 9/26/2017 11:51:31 AM  
Analysis label: Control 4 B User name: ICAP-Q\Thermo

Category	7Li (KED)	11B (KED)	75As (KED)	88Sr (KED)	115In (KED)	137Ba (KED)	138Ba (KED)	238U (KED)
Intensity average	87 cps	1,127 cps	510 cps	25,804 cps	12,380 cps	877 cps	7,015 cps	22,965 cps
Intensity per Run 1	60 cps	1,150 cps	450 cps	26,439 cps	11,816 cps	930 cps	7,032 cps	21,730 cps
Intensity per Run 2	70 cps	1,160 cps	440 cps	24,425 cps	12,256 cps	940 cps	7,202 cps	22,621 cps
Intensity per Run 3	130 cps	1,070 cps	640 cps	26,549 cps	13,067 cps	760 cps	6,812 cps	24,545 cps
Intensity RSD	43.7 %	4.4 %	22.1 %	4.6 %	5.1 %	11.5 %	2.8 %	6.3 %

2017-08-09 10:27-2017



b6 -1  
b7C -1

# Intensities

9/26/2017 12:34:34 PM



Instrument Name: Serial Number:  
ICAP-Q SN02602R

Labbook: Labbook Path:  
multielement urine screen KED.imexp

b7E -2

Analysis index: 22 Analysis started at: 9/26/2017 11:55:20 AM  
Analysis label: Control 40 B User name: ICAP-Q\Thermo

Category	7Li (KED)	11B (KED)	75As (KED)	88Sr (KED)	115In (KED)	137Ba (KED)	138Ba (KED)	238U (KED)
Intensity average	347 cps	1,123 cps	4,164 cps	47,511 cps	12,153 cps	12,560 cps	96,560 cps	438,353 cps
Intensity per Run 1	410 cps	1,130 cps	4,171 cps	48,016 cps	11,055 cps	12,567 cps	92,923 cps	458,905 cps
Intensity per Run 2	340 cps	970 cps	4,281 cps	47,997 cps	12,967 cps	12,347 cps	97,093 cps	425,900 cps
Intensity per Run 3	290 cps	1,270 cps	4,041 cps	46,520 cps	12,437 cps	12,767 cps	99,663 cps	430,254 cps
Intensity RSD	17.4 %	13.4 %	2.9 %	1.8 %	8.1 %	1.7 %	3.5 %	4.1 %

2017-00469 1027-201



b6 -1  
b7C -1

# Exclusionary Drug Screen by UPLC-ESI-FTMS

2017-00469

Item 1, blood

Item 2, urine

Item 3, blood

Item 5, urine

*not detailed*



b6 -1  
b7C -1

The samples were aliquoted, extracted, and analyzed on 09/28/2017  
and 09/29/2017.

b6 -1  
b7C -1



154

2017-00469 1027 FBI(20-cv-0545)-1183



EXCLUSIONARY DRUG SCREEN BY UPLC-ESI-FTMS  
CHEMISTRY UNIT TOXICOLOGY SOP 215-2

CHEMIST:   
DATE: 9/28/17

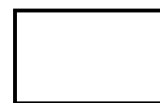
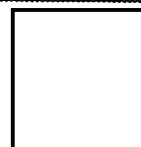
b6 -1  
b7C -1

Batch #2

PROCEDURE:

For blood specimens:		
<input checked="" type="checkbox"/>	Add 0.3 mL each sample and control to a properly-labeled 13 x 100 mm test tube.	LOT NEG CTL: <u>KP5758</u>
<input checked="" type="checkbox"/>	Add 25 µL of Internal Standard Working Solution.	LOT: <u>Tox 215 STD 160701</u>
<input checked="" type="checkbox"/>	Add 0.7 mL 0.5 M, pH 5 Ammonium Acetate Buffer. Add 0.6 mL DI water and vortex.	LOT: <span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span>
<input checked="" type="checkbox"/>	Add 80 µL of 4.5 M Ammonium Hydroxide and vortex. <i>Prepare fresh by combining 1.4 mL deionized water and 0.6 mL concentrated ammonium hydroxide in a test tube</i>	LOT Ammonia: <u>163894</u>
For urine specimens:		
<input checked="" type="checkbox"/>	Add 0.3 mL each unknown and control to a properly-labeled 13 x 100 mm test tube.	LOT NEG CTL: <u>72112</u>
<input checked="" type="checkbox"/>	Prepare hydrolysis control urine (0.005 mL morphine gluc ctl ws to 0.3 mL negative control urine).	LOT Morph Gluc Ctl WS: <span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span> <i>ipm urine, Added 15 µL</i>
<input checked="" type="checkbox"/>	Add 25 µL of Internal Standard Working Solution.	LOT: <u>Tox 215 STD 160701</u>
<input checked="" type="checkbox"/>	Enzymatic Hydrolysis:	
<input checked="" type="checkbox"/>	Add 0.6 mL of 0.5 M, pH 5 Ammonium Acetate Buffer	LOT: <span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span>
<input checked="" type="checkbox"/>	Add 100 µL β-Glucuronidase (H. Rufescens)	LOT: <u>4006</u>
<input checked="" type="checkbox"/>	Vortex, cap, and incubate 30 minutes at 68° C.	
<input checked="" type="checkbox"/>	Cool to room temperature.	
<input checked="" type="checkbox"/>	Add 0.6 mL DI water and vortex.	
<input checked="" type="checkbox"/>	Add 80 µL of 4.5 M Ammonium Hydroxide and vortex. <i>Prepare fresh by combining 1.4 mL deionized water and 0.6 mL concentrated ammonium hydroxide in a test tube</i>	LOT Ammonia: <u>163894</u>
For all specimens:		
<input checked="" type="checkbox"/>	Prepare SLE cartridge:	LOT: <u>16196627GF</u>
<input checked="" type="checkbox"/>	Load samples by gravity. Brief application of low vacuum will be necessary at the start of loading. DO NOT ELUTE. Allow to stand for 5 minutes.	
<input checked="" type="checkbox"/>	Apply 3 mL of 95/5 dichloromethane / isopropanol and allow to absorb. Allow to stand for 5 minutes. DO NOT APPLY VACUUM.	LOT: <span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span>
<input checked="" type="checkbox"/>	Elute by gravity into 16 x 100 mm culture tubes with 2 x 4 mL 95/5 dichloromethane / isopropanol. Briefly apply full vacuum to complete elution.	
<input checked="" type="checkbox"/>	Evaporate at 45° C. When eluent volume reaches 0.5-1 mL, vortex briefly before evaporating to dryness.	
<input checked="" type="checkbox"/>	Reconstitute with 0.1 mL of 95/5 water / acetonitrile.	LOT: <span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span>
<input checked="" type="checkbox"/>	Filter with <u>0.22</u> µm centrifuge tubes.	
<input checked="" type="checkbox"/>	Analyze 20 µL of extract by UPLC-ESI-FTMS.	

Additional Notes / Deviations



b6 -1  
b7C -1





EXCLUSIONARY DRUG SCREEN BY UPLC-ESI-FTMS  
CHEMISTRY UNIT TOXICOLOGY SOP 215-2  
INSTRUMENTAL METHOD PARAMETERS

CHEMIST:   
DATE: 9/28/17

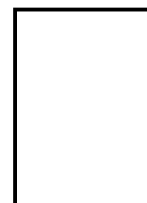
b6 -1  
b7C -1

Batch #2

LC/MS Instrument Name: CU-EXACTIVE-1		Method File Name: ExclusionSOP	
Mobile Phase A:	<input checked="" type="checkbox"/> 5 mM ammonium formate with 0.1% formic acid	Lot#	
Mobile Phase B:	<input checked="" type="checkbox"/> acetonitrile with 0.1% formic acid	Lot#	
Mobile Phase Gradient:	<input checked="" type="checkbox"/> Start at 95% A, hold 0.9 min	<input checked="" type="checkbox"/> Ramp to 60% A at 2.67 min, Hold 2 min	<input checked="" type="checkbox"/> Ramp to 0% A at 5.56 min, Hold 1.44 min
	<input checked="" type="checkbox"/> Ramp to 95% A at 7.25 min, Hold 2.75 min	<input checked="" type="checkbox"/> Total Run Time = 10 min	<input checked="" type="checkbox"/> Event table: at 6.25 min, cycle inject valve
LC Column:	<input checked="" type="checkbox"/> Waters Cortecs C18-UPLC; 50x2.1 mm x 1.6 µm, 5x2.1 mm precolumn Column SN: 01203430817232		
	<input checked="" type="checkbox"/> Flow Rate = 0.5 mL/min	<input checked="" type="checkbox"/> Temperature = 30°C	
Autosampler:	<input checked="" type="checkbox"/> Injection Volume = 20 µL	<input checked="" type="checkbox"/> Temperature = 14°C	
	<input checked="" type="checkbox"/> Seal & Weak Washes 10 / 90 acetonitrile:water		Lot # <span style="border: 1px solid black; display: inline-block; width: 100px; height: 1.2em; vertical-align: middle;"></span>
	<input checked="" type="checkbox"/> Strong Wash 40 / 60 / 10 / 5		Lot # <span style="border: 1px solid black; display: inline-block; width: 100px; height: 1.2em; vertical-align: middle;"></span>
	<input checked="" type="checkbox"/> Wash Solvent 50 / 50 acetonitrile:water		
Mass Spectrometer:	<input checked="" type="checkbox"/> Source = ESI positive ion	<input checked="" type="checkbox"/> Mode = full scan MS	<input checked="" type="checkbox"/> FTMS 70000 resolution
	<input checked="" type="checkbox"/> Range 180-525 m/z	<input checked="" type="checkbox"/> Max Ionization Time = 50 ms	<input checked="" type="checkbox"/> AGC = 1e6

b6 -1  
b7C -1  
b7E -9

NOTES & DEVIATIONS:



b6 -1  
b7C -1

Path

inj Vol  
20ul

VERIFIED

9/23/17

b6 -1  
b7C -1  
b7E -2

File Name Sample Name Position Instrument Method

20170928\_01 sb 1:A,1  
20170928\_02 sb 1:A,1  
20170928\_03 ncb 1:A,2  
20170928\_04 2017-02711, 1(A), blood 1:A,3  
20170928\_05 sb 1:A,4  
20170928\_06 2017-02441#1, 1, blood 1:A,5  
20170928\_07 sb 1:A,6  
20170928\_08 2017-02442#1, 1(A), vitreous 1:A,7  
20170928\_09 sb 1:A,8  
20170928\_10 2017-02632, 1, blood 1:B,1  
20170928\_11 sb 1:B,2  
20170928\_12 2017-02633, 1, blood 1:B,3  
20170928\_13 sb 1:B,4  
20170928\_14 2017-02692, 1(A), blood 1:B,5  
20170928\_15 sb 1:B,6  
20170928\_16 2017-02693#1, 1(A), blood 1:B,7  
20170928\_17 sb 1:B,8  
20170928\_18 2017-02694#1, 1, blood 1:C,1  
20170928\_19 sb 1:C,2  
20170928\_20 PT17-18A, FTC-05, blood 1:C,3  
20170928\_21 sb 1:C,4  
20170928\_22 PT17-18A, FTC-06, blood 1:C,5  
20170928\_23 sb 1:C,6  
20170928\_24 PT17-18A, FTC-07, blood 1:C,7  
20170928\_25 sb 1:C,8  
20170928\_26 sb 1:C,8  
20170928\_27 neu 1:D,1  
20170928\_28 PT17-18A, FTC-08, urine 1:D,2  
20170928\_29 hydrolysis check 1:D,3  
20170928\_30 sb 1:C,6  
20170928\_31 sb 1:D,4  
20170928\_32 sb 1:D,4  
20170928\_33 ncb 1:D,5  
20170928\_34 2017-00469, 1, blood 1:D,6  
20170928\_35 sb 1:D,7  
20170928\_36 2017-00469, 3, blood 1:D,8  
20170928\_37 sb 1:E,1  
20170928\_38 2017-01913#1, 1, blood 1:E,2  
20170928\_39 sb 1:E,3  
20170928\_40 2017-02298#1, 1(A), blood 1:E,4  
20170928\_41 sb 1:E,5  
20170928\_42 2017-02364, 1(A), blood 1:E,6  
20170928\_43 sb 1:E,7  
20170928\_44 2017-02372, 1(A), blood 1:E,8  
20170928\_45 sb 1:F,1  
20170928\_46 2017-02386, 1(A), blood 1:F,2  
20170928\_47 sb 1:F,3  
20170928\_48 2017-02421#1, 1, blood 1:F,4  
20170928\_49 sb 1:F,5  
20170928\_50 2017-02423#1, 1, blood 1:F,6  
20170928\_51 sb 1:F,7  
20170928\_52 2017-02439, 1(A), blood 1:F,8  
20170928\_53 sb 2:A,1  
20170928\_54 2017-02440#1, 1(A), blood 2:A,2  
20170928\_55 sb 2:A,3  
20170928\_56 2017-02695, 1(A), blood 2:A,4  
20170928\_57 sb 2:A,5  
20170928\_58 sb 2:A,5  
20170928\_59 neu 2:A,6  
20170928\_60 2017-00469, 2, urine 2:A,7  
20170928\_61 sb 2:A,8  
20170928\_62 2017-00469, 5, urine 2:B,1  
20170928\_63 sb 2:B,2  
20170928\_64 2017-02207, 1, urine 2:B,3  
20170928\_65 sb 2:B,4  
20170928\_66 2017-02346, 6, urine 2:B,5  
20170928\_67 hydrolysis check 2:B,6  
20170928\_68 sb 2:A,8  
20170928\_flush sb-flush 2:B,2  
20170928\_standby sb-standby 2:B,4

File corrupt/unusable data

9/24/17

b6 -1  
b7C -1  
b7E -2

Path

[Redacted]

b6 -1  
b7C -1  
b7E -2

Inj Vol

20 uL

VERIFIED 9/29/17

[Redacted]

File Name	Sample Name	Position	Instrument Method
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20170929_01	sb	2:A,5	
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20170929_02	sb	2:A,5	
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20170929_03	ncu	2:A,6	
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20170929_04	2017-00469, 2, urine	2:A,7	
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20170929_05	hydrolysis check	2:B,6	
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20170929_06	sb	2:A,8	
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20170929_flush	sb-flush	2:B,2	
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20170929_standby	sb-standby	2:B,4	
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[Redacted]

b7E -2

[Redacted]

b6 -1  
b7C -1

## Exclusionary Screening by UPLC/FTMS

Batch: 20170928

Method: ExclusionSOP\_TargetingScreening

Inst. Method:

Acquired: 9/28/2017 23:27

Sample Type: Unknown

Vial Position: 1.D.6

Lab Name: FBI Laboratory

Assay: Exclusionary Screening TOX 215

Sample: 2017-00469, 1, blood

Comment:

File: 20170928\_34

b7E -2

Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
●	d5-alprazolam	+	1.64E+07	3.07 (-0.03)	314.1215	314.1221	0.54	100.00	6 of 7	
●	d5-hydroxalprazolam	+	2.86E+06	2.91 (-0.03)	330.1165	330.1170	0.58	100.00	6 of 6	
●	d4-clonazepam	+	4.51E+05	3.08 (-0.03)	320.0735	320.0739	0.49	100.00	4 of 5	
●	d4-7-aminoclonazepam	+	3.90E+06	2.06 (-0.01)	290.0993	290.0997	0.43	100.00	5 of 6	
●	d5-diazepam	+	1.05E+07	3.7 (-0.05)	290.1103	290.1108	0.45	100.00	5 of 7	
●	d5-oxazepam	+	1.14E+06	2.99 (-0.01)	292.0896	292.0900	0.46	100.00	4 of 5	
●	d6-zolpidem	+	8.17E+06	2.36 (-0.01)	314.2134	314.2137	0.25	100.00	3 of 3	
●	d3-benzoylcegonine	+	7.70E+07	1.96 (-0.01)	293.1575	293.1578	0.27	100.00	5 of 5	
●	d3-diphenhydramine	+	5.43E+06	2.73 (0)	259.1884	259.1888	0.42	100.00	3 of 4	
●	d6-oxycodone	+	1.77E+07	1.71 (-0.01)	322.1920	322.1925	0.50	100.00	4 of 4	
●	d3-morphine	+	1.35E+07	0.56 (0)	289.1626	289.1630	0.39	100.00	4 of 4	
●	d3-hydrocodone	+	1.33E+07	1.8 (-0.03)	303.1783	303.1787	0.40	100.00	3 of 4	
	morphine	+	N/A	N/A (N/A)	286.1438	N/A	N/A	N/A	N/A	
	hydroxalprazolam	+	N/A	N/A (N/A)	325.0851	N/A	N/A	N/A	N/A	
	hydroxymidazolam	+	N/A	N/A (N/A)	342.0804	N/A	N/A	N/A	N/A	
	hydroxytriazolam	+	N/A	N/A (N/A)	359.0461	N/A	N/A	N/A	N/A	
	7-aminoclonazepam	+	N/A	N/A (N/A)	286.0742	N/A	N/A	N/A	N/A	
	7-aminoflunitrazepam	+	N/A	N/A (N/A)	284.1194	N/A	N/A	N/A	N/A	
	alprazolam	+	N/A	N/A (N/A)	309.0902	N/A	N/A	N/A	N/A	
	bromazepam	+	N/A	N/A (N/A)	316.0080	N/A	N/A	N/A	N/A	
	chlordiazepoxide	+	N/A	N/A (N/A)	300.0898	N/A	N/A	N/A	N/A	
	clonazepam	+	N/A	N/A (N/A)	316.0484	N/A	N/A	N/A	N/A	
	desalkylflurazepam	+	N/A	N/A (N/A)	289.0539	N/A	N/A	N/A	N/A	
	desmethylflunitrazepam	+	N/A	N/A (N/A)	300.0779	N/A	N/A	N/A	N/A	
	diazepam	+	N/A	N/A (N/A)	285.0789	N/A	N/A	N/A	N/A	
	estazolam	+	N/A	N/A (N/A)	295.0745	N/A	N/A	N/A	N/A	
	etizolam	+	N/A	N/A (N/A)	343.0779	N/A	N/A	N/A	N/A	
	flunitrazepam	+	N/A	N/A (N/A)	314.0936	N/A	N/A	N/A	N/A	
	flurazepam	+	N/A	N/A (N/A)	388.1586	N/A	N/A	N/A	N/A	

b6 -1  
b7C -1

2017-00469 1027-2017

## Exclusionary Screening by UPLC/FTMS

Batch: 20170928  
 Method: ExclusionSOP\_TargetingScreening  
 Inst. Method:  
 Acquired: 9/28/2017 23:27  
 Sample Type: Unknown  
 Vial Position: 1:D.6

Lab Name: FBI Laboratory  
 Assay: Exclusionary Screening TOX 215

Sample: 2017-00469, 1, blood  
 Comment:  
 File: 20170928\_34

b7E -2

Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	lorazepam	+	N/A	N/A (N/A)	321.0192	N/A		N/A N/A	N/A	
	lormetazepam	+	N/A	N/A (N/A)	335.0349	N/A		N/A N/A	N/A	
	medazepam	+	N/A	N/A (N/A)	271.0997	N/A		N/A N/A	N/A	
	midazolam	+	N/A	N/A (N/A)	326.0855	N/A		N/A N/A	N/A	
	nordiazepam	+	N/A	N/A (N/A)	271.0633	N/A		N/A N/A	N/A	
	oxazepam	+	N/A	N/A (N/A)	287.0582	N/A		N/A N/A	N/A	
	phenazepam	+	N/A	N/A (N/A)	348.9738	N/A		N/A N/A	N/A	
	prazepam	+	N/A	N/A (N/A)	325.1102	N/A		N/A N/A	N/A	
	temazepam	+	N/A	N/A (N/A)	301.0738	N/A		N/A N/A	N/A	
	tetrazepam	+	N/A	N/A (N/A)	289.1102	N/A		N/A N/A	N/A	
	triazolam	+	N/A	N/A (N/A)	343.0512	N/A		N/A N/A	N/A	
	6-acetylmorphine	+	N/A	N/A (N/A)	328.1543	N/A		N/A N/A	N/A	
	codeine	+	N/A	N/A (N/A)	300.1594	N/A		N/A N/A	N/A	
	dihydrocodeine	+	N/A	N/A (N/A)	302.1751	N/A		N/A N/A	N/A	
	dihydromorphone	+	N/A	N/A (N/A)	288.1594	N/A		N/A N/A	N/A	
	EDDP	+	N/A	N/A (N/A)	278.1903	N/A		N/A N/A	N/A	
	hydrocodone	+	N/A	N/A (N/A)	300.1594	N/A		N/A N/A	N/A	
	hydromorphone	+	N/A	N/A (N/A)	286.1438	N/A		N/A N/A	N/A	
	norcodeine	+	N/A	N/A (N/A)	286.1438	N/A		N/A N/A	N/A	
	normorphine	+	N/A	N/A (N/A)	272.1281	N/A		N/A N/A	N/A	
	noroxycodone	+	N/A	N/A (N/A)	302.1387	N/A		N/A N/A	N/A	
	oxycodone	+	N/A	N/A (N/A)	316.1543	N/A		N/A N/A	N/A	
	oxymorphone	+	N/A	N/A (N/A)	302.1387	N/A		N/A N/A	N/A	
	ecgonine methyl ester	+	N/A	N/A (N/A)	200.1281	N/A		N/A N/A	N/A	
●	benzoylecgonine	+	1.16E+05	1.96 (0)	290.1387	290.1390	0.33	89.00	1 of 2	
	cocaethylene	+	N/A	N/A (N/A)	318.1700	N/A		N/A N/A	N/A	
●	cocaine	+	1.32E+05	2.31 (0.01)	304.1543	304.1556	1.25	85.00	1 of 2	
	brompheniramine	+	N/A	N/A (N/A)	319.0804	N/A		N/A N/A	N/A	
	chlorpheniramine	+	N/A	N/A (N/A)	275.1310	N/A		N/A N/A	N/A	

b6 -1  
 b7C -1

## Exclusionary Screening by UPLC/FTMS

Batch: 20170928

Method: ExclusionSOP\_TargetingScreening

Inst. Method:

Acquired: 9/28/2017 23:27

Sample Type: Unknown

Vial Position: 1:D.6

Lab Name: FBI Laboratory

Assay: Exclusionary Screening TOX 215

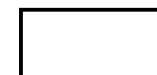
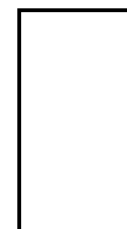
Sample: 2017-00469, 1, blood

Comment:

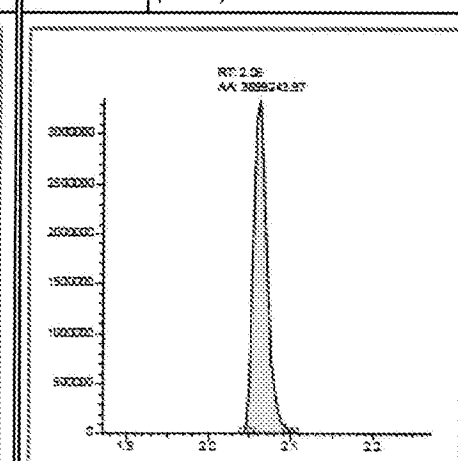
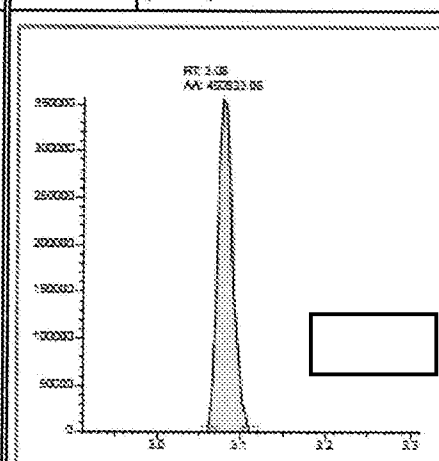
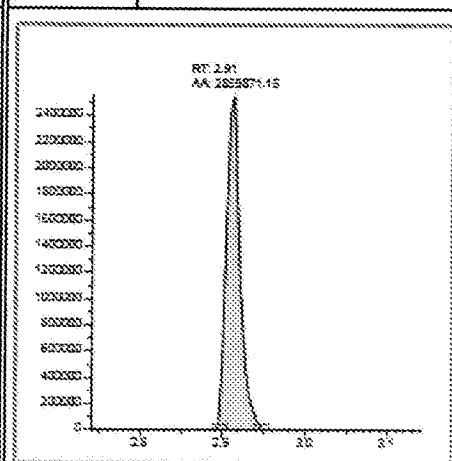
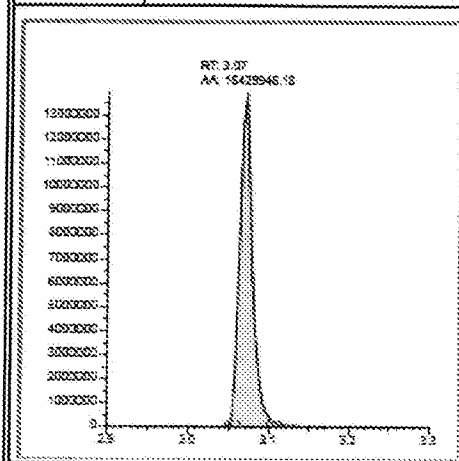
File: 20170928\_34

b7E -2

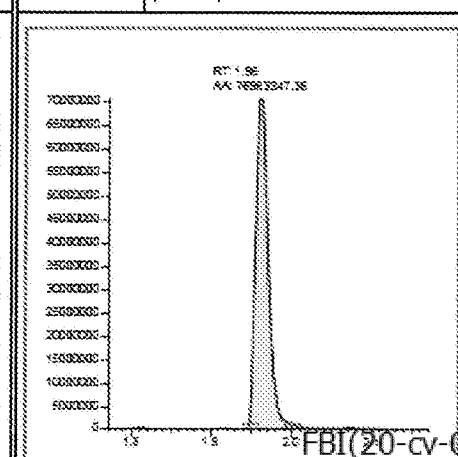
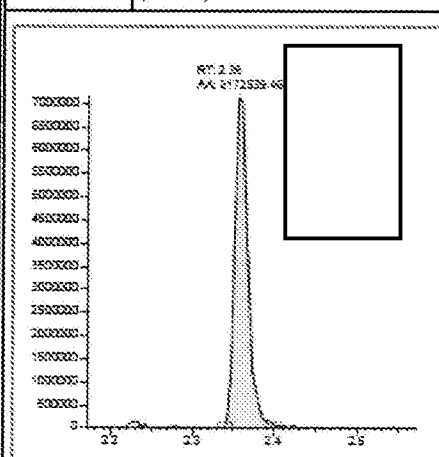
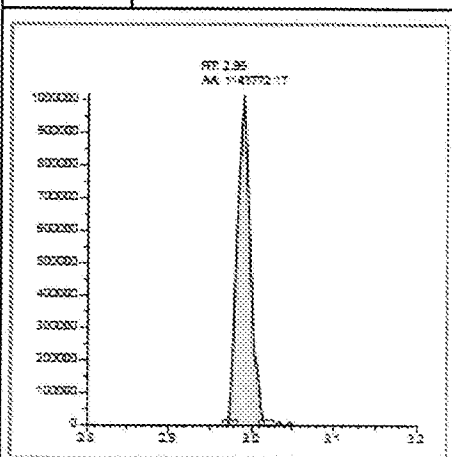
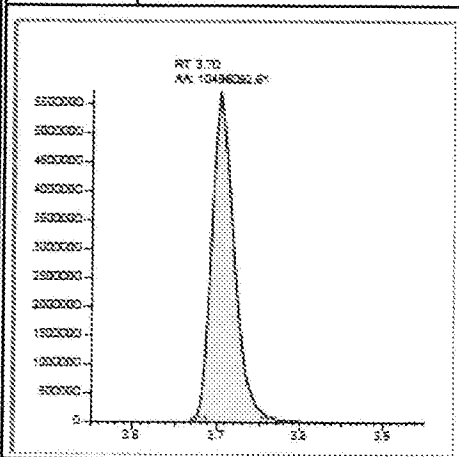
Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	dextromethorphan	+	N/A	N/A (N/A)	272.2009	N/A	N/A	N/A	N/A	
	dextrorphan	+	N/A	N/A (N/A)	258.1852	N/A	N/A	N/A	N/A	
	diphenhydramine	+	N/A	N/A (N/A)	256.1696	N/A	N/A	N/A	N/A	
	doxylamine	+	N/A	N/A (N/A)	271.1805	N/A	N/A	N/A	N/A	
	hydroxyzine	+	N/A	N/A (N/A)	375.1834	N/A	N/A	N/A	N/A	
	norchlorcyclizine	+	N/A	N/A (N/A)	287.1310	N/A	N/A	N/A	N/A	
	pheniramine	+	N/A	N/A (N/A)	241.1699	N/A	N/A	N/A	N/A	
	tetrahydrozoline	+	N/A	N/A (N/A)	201.1386	N/A	N/A	N/A	N/A	
	zaleplon	+	N/A	N/A (N/A)	306.1349	N/A	N/A	N/A	N/A	
	zolpidem	+	N/A	N/A (N/A)	308.1757	N/A	N/A	N/A	N/A	
	zopiclone	+	N/A	N/A (N/A)	389.1123	N/A	N/A	N/A	N/A	
	duloxetine	+	N/A	N/A (N/A)	298.1260	N/A	N/A	N/A	N/A	

b6 -1  
b7C -1

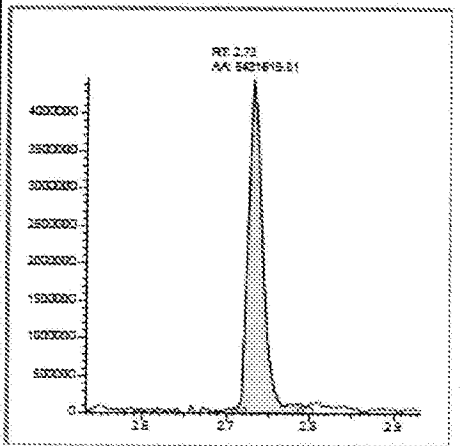
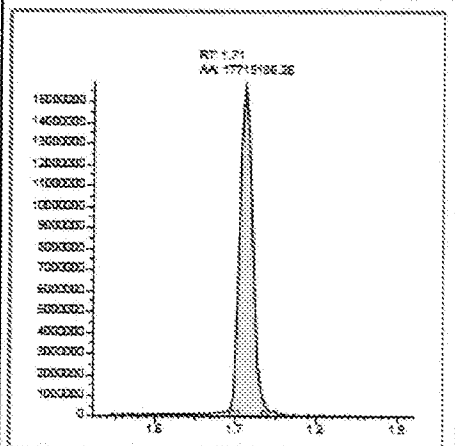
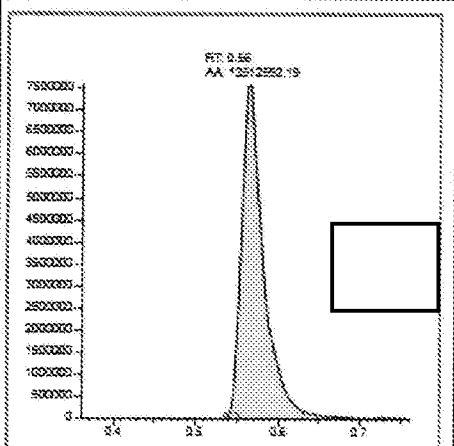
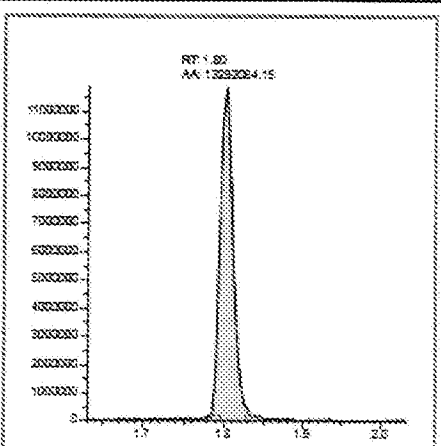
Compound:	<b>d5-alprazolam</b>	Compound:	<b>d5-hydroxalprazolam</b>	Compound:	<b>d4-clonazepam</b>	Compound:	<b>d4-7-aminoclonazepam</b>
RT(exp)	3.1	RT(exp)	2.94	RT(exp)	3.11	RT(exp)	2.07
RT(delta)	3.07 (-0.03)	RT(delta)	2.91 (-0.03)	RT(delta)	3.08 (-0.03)	RT(delta)	2.06 (-0.01)
Area:	16430000	Area:	2859900	Area:	450930	Area:	3899200
m/z:	314.1221	m/z:	330.1170	m/z:	320.0739	m/z:	290.0997
delta	(mmu): 0.54	delta	(mmu): 0.58	delta	(mmu): 0.49	delta	(mmu): 0.43

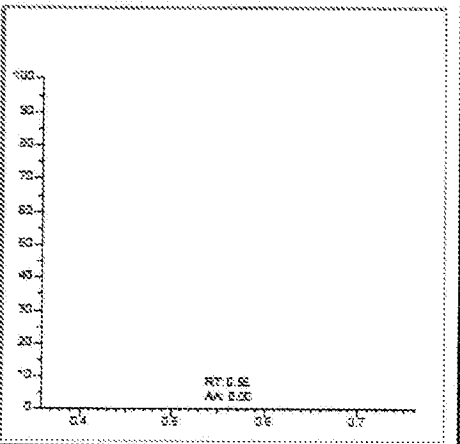
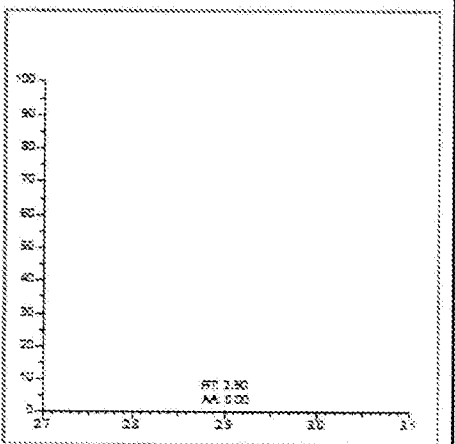
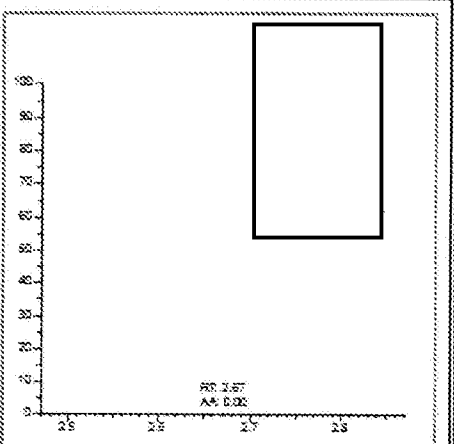
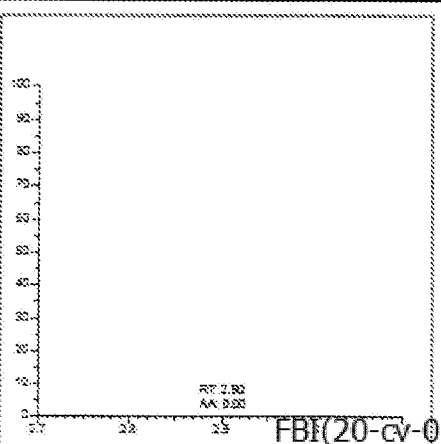


Compound:	<b>d5-diazepam</b>	Compound:	<b>d5-oxazepam</b>	Compound:	<b>d6-zolpidem</b>	Compound:	<b>d3-benzoylecgonine</b>
RT(exp)	3.75	RT(exp)	3	RT(exp)	2.37	RT(exp)	1.97
RT(delta)	3.7 (-0.05)	RT(delta)	2.99 (-0.01)	RT(delta)	2.36 (-0.01)	RT(delta)	1.96 (-0.01)
Area:	10496000	Area:	1143800	Area:	8172500	Area:	76963000
m/z:	290.1108	m/z:	292.0900	m/z:	314.2137	m/z:	293.1578
delta	(mmu): 0.45	delta	(mmu): 0.46	delta	(mmu): 0.25	delta	(mmu): 0.27



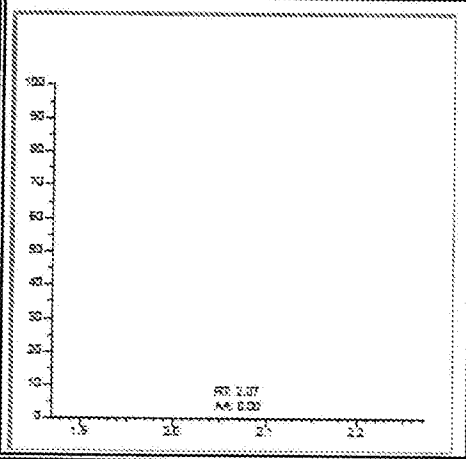
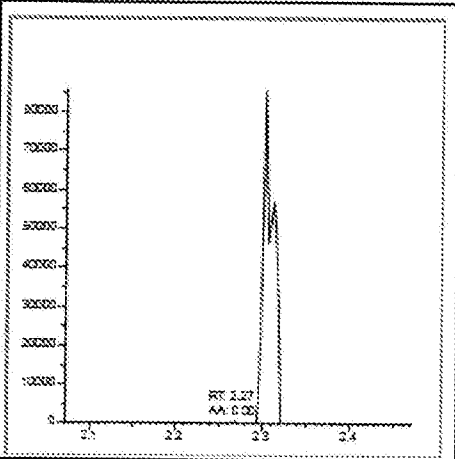
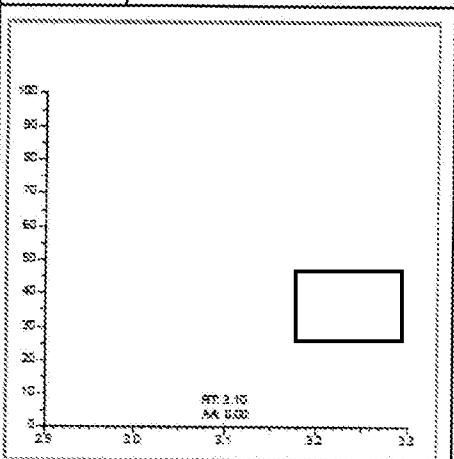
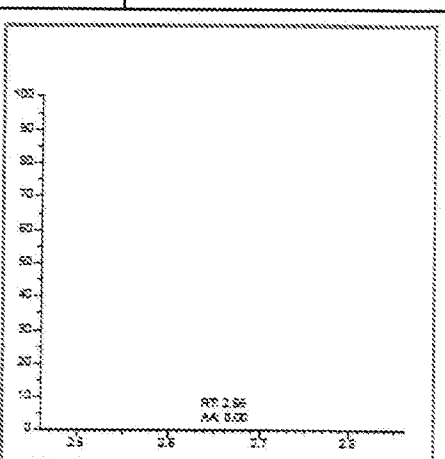
b6 -1  
b7C -1

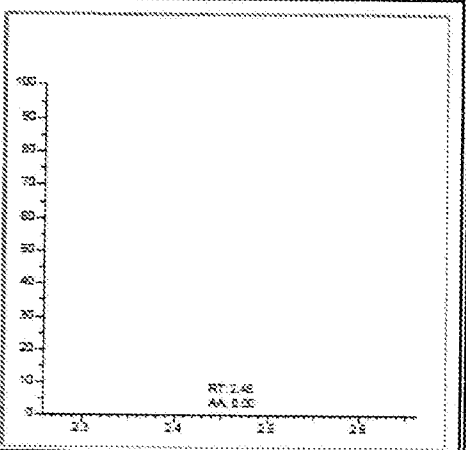
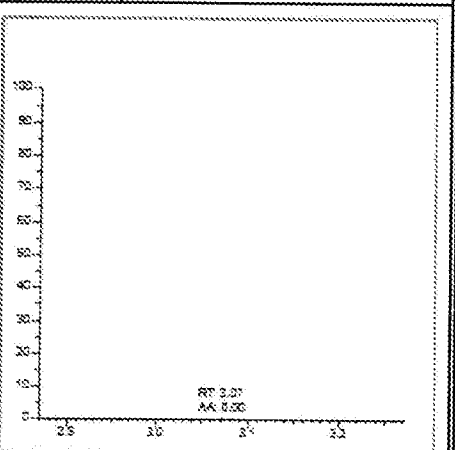
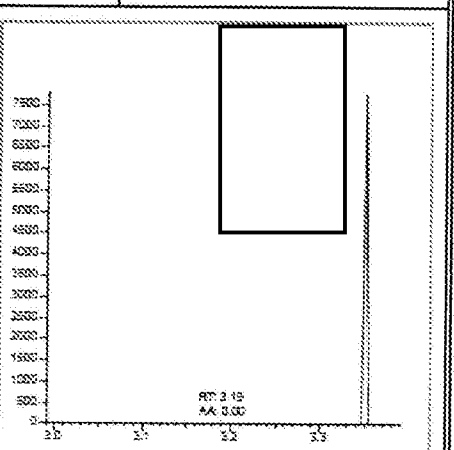
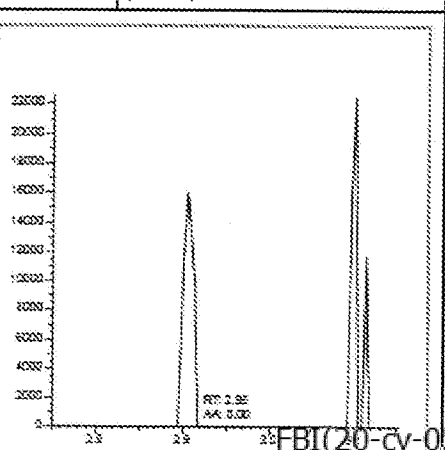
Compound:	<b>d3-diphenhydramine</b>	Compound:	<b>d6-oxycodone</b>	Compound:	<b>d3-morphine</b>	Compound:	<b>d3-hydrocodone</b>
RT(exp)	2.73	RT(exp)	1.72	RT(exp)	0.56	RT(exp)	1.83
RT(delta)	2.73 (0)	RT(delta)	1.71 (-0.01)	RT(delta)	0.56 (0)	RT(delta)	1.8 (-0.03)
Area:	5431600	Area:	17715000	Area:	13513000	Area:	13292000
m/z:	259.1888	m/z:	322.1925	m/z:	289.1630	m/z:	303.1787
delta	(mmu): 0.42	delta	(mmu): 0.5	delta	(mmu): 0.39	delta	(mmu): 0.4
							

Compound:	<b>morphine</b>	Compound:	<b>hydroxylalprazolam</b>	Compound:	<b>hydroxymidazolam</b>	Compound:	<b>hydroxytriazolam</b>
RT(exp)	0.56	RT(exp)	2.9	RT(exp)	2.67	RT(exp)	2.9
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

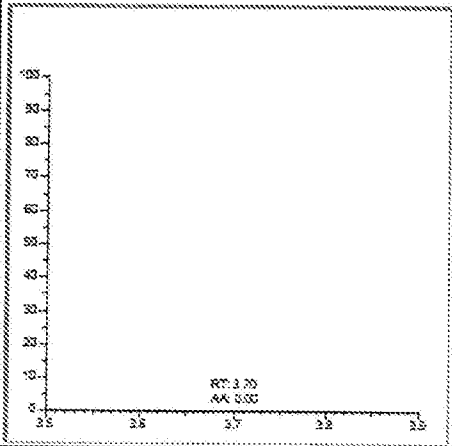
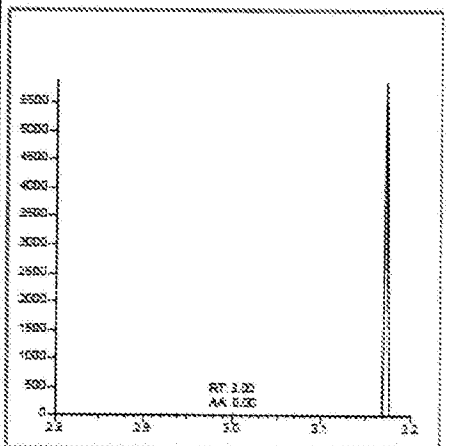
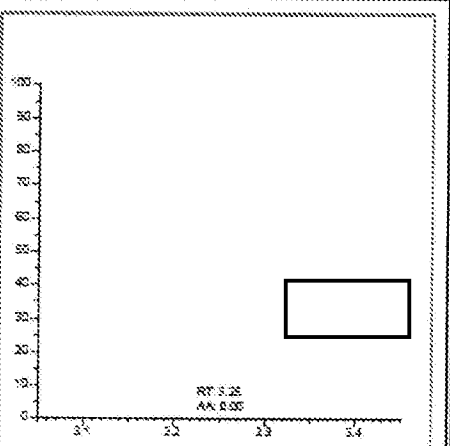
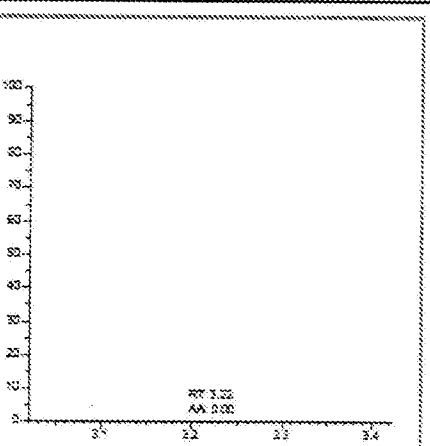
b6 -1  
 b7C -1

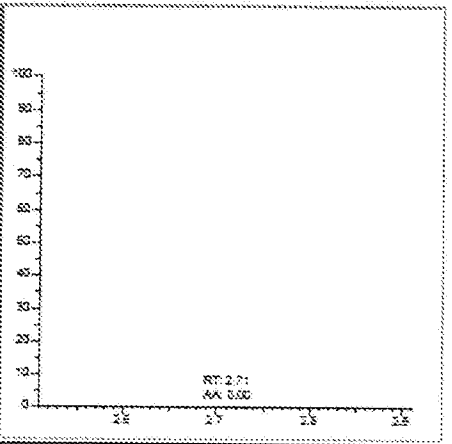
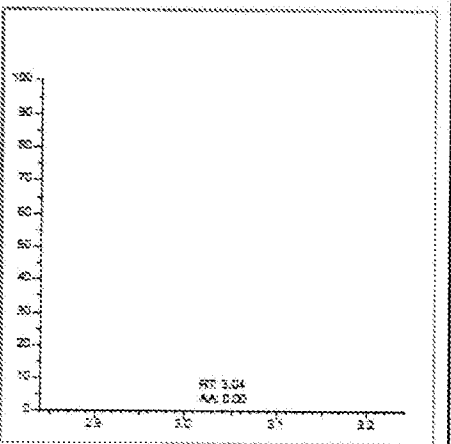
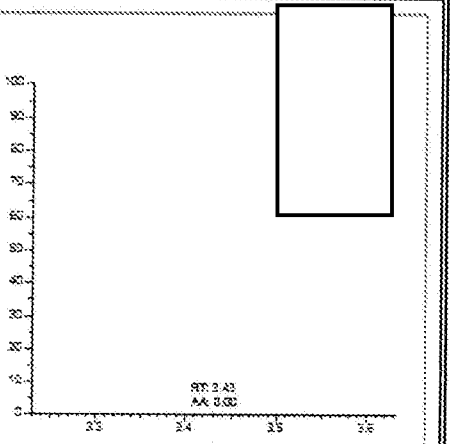
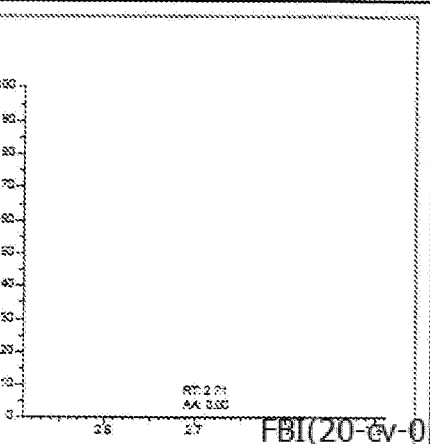


Compound:	<b>7-aminoclonazepam</b>	Compound:	<b>7-aminoflunitrazepam</b>	Compound:	<b>alprazolam</b>	Compound:	<b>bromazepam</b>
RT(exp)	2.07	RT(exp)	2.27	RT(exp)	3.1	RT(exp)	2.66
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

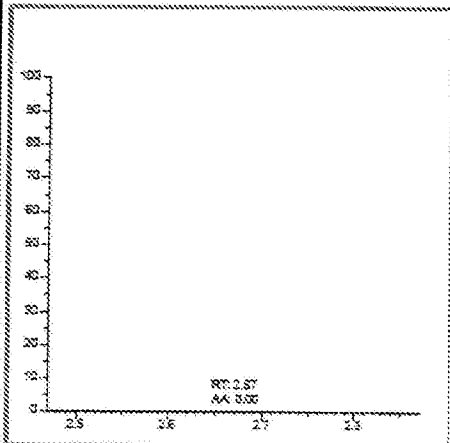
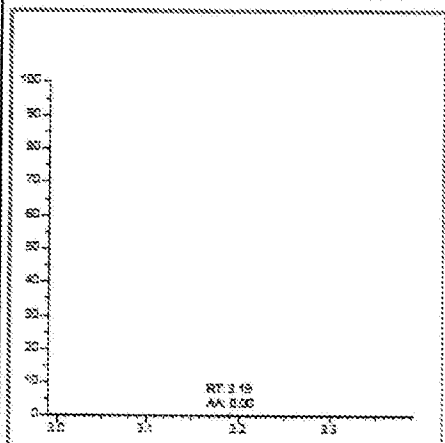
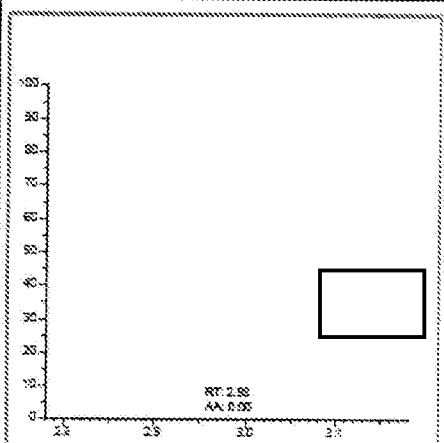
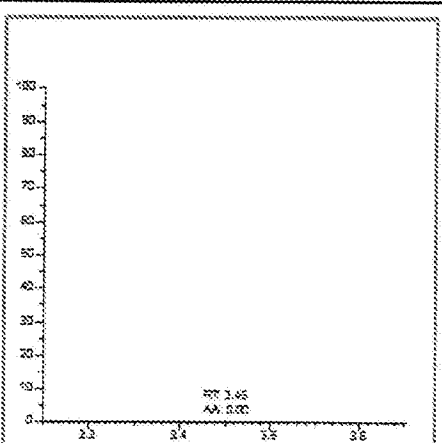
Compound:	<b>chlordiazepoxide</b>	Compound:	<b>clonazepam</b>	Compound:	<b>desalkylflurazepam</b>	Compound:	<b>desmethyflunitrazepam</b>
RT(exp)	2.46	RT(exp)	3.07	RT(exp)	3.19	RT(exp)	2.95
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

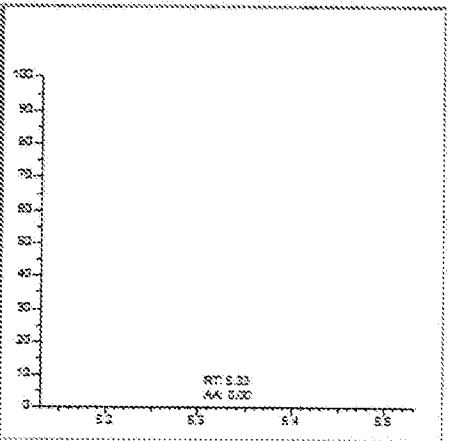
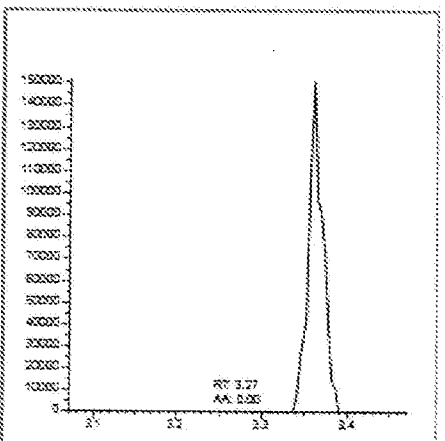
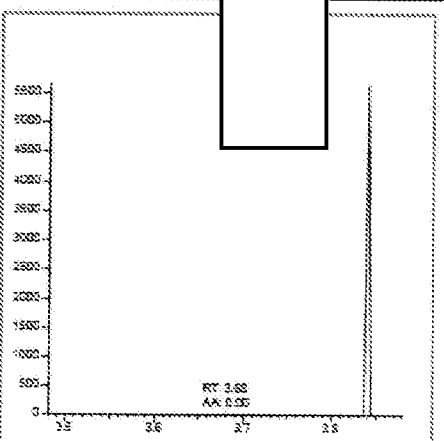
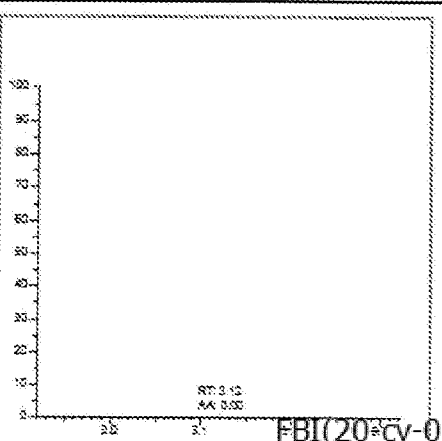
b6 -1  
b7C -1

Compound:	<b>diazepam</b>	Compound:	<b>estazolam</b>	Compound:	<b>etizolam</b>	Compound:	<b>flunitrazepam</b>
RT(exp)	3.7	RT(exp)	3	RT(exp)	3.25	RT(exp)	3.22
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

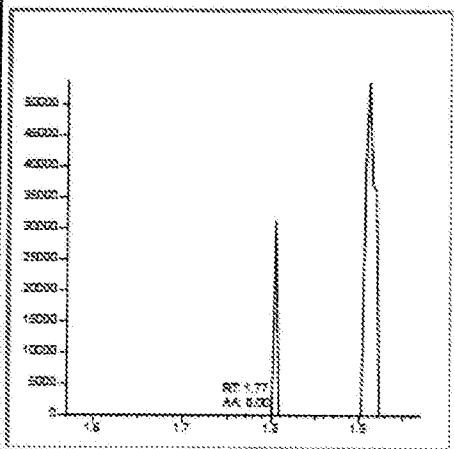
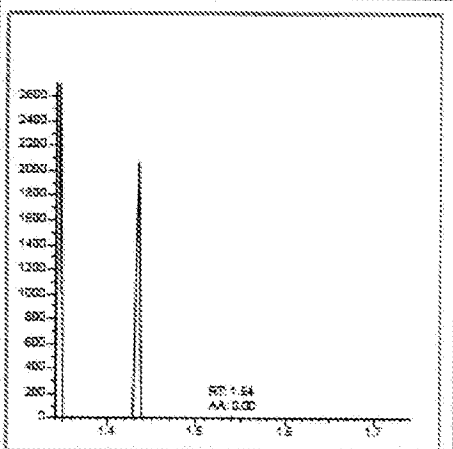
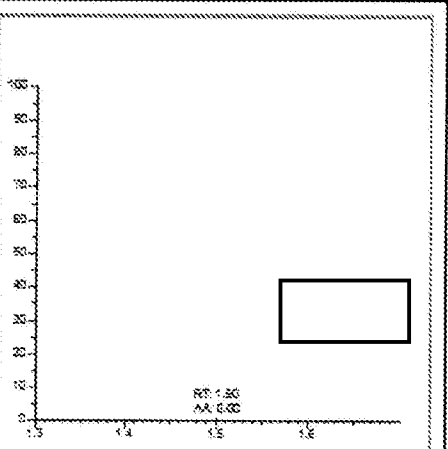
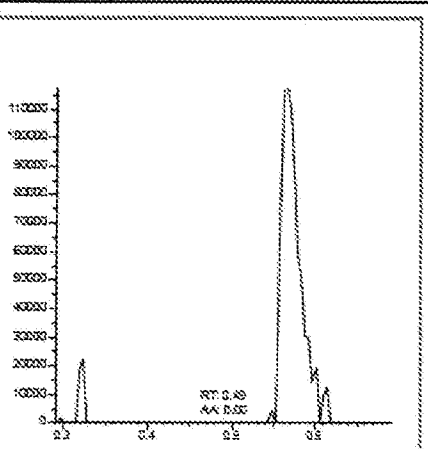
Compound:	<b>flurazepam</b>	Compound:	<b>lorazepam</b>	Compound:	<b>lormetazepam</b>	Compound:	<b>medazepam</b>
RT(exp)	2.71	RT(exp)	3.04	RT(exp)	3.43	RT(exp)	2.71
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

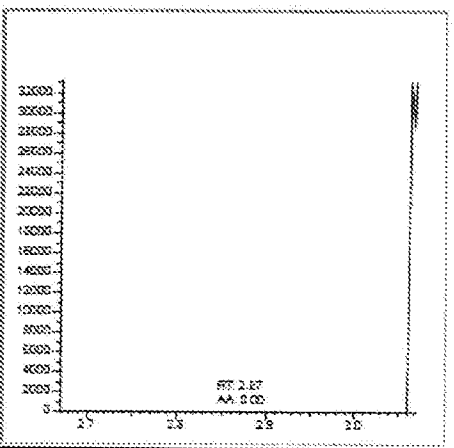
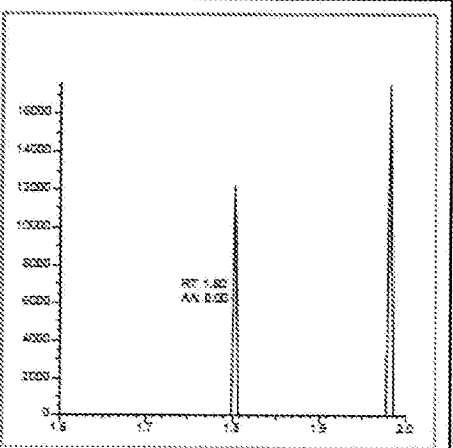
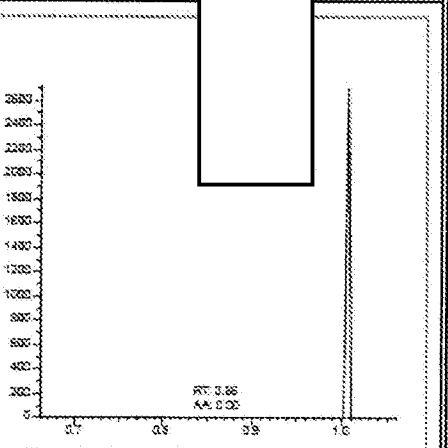
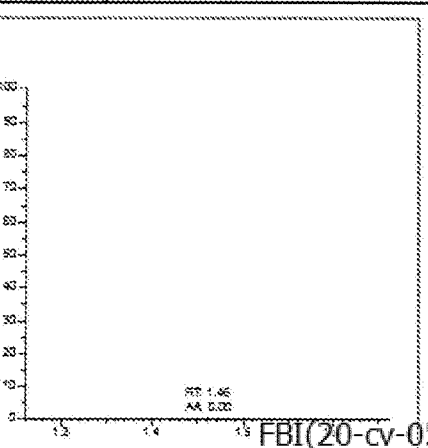
b6 -1  
b7C -1

Compound:	<b>midazolam</b>	Compound:	<b>nordiazepam</b>	Compound:	<b>oxazepam</b>	Compound:	<b>phenazepam</b>
RT(exp)	2.67	RT(exp)	3.19	RT(exp)	2.98	RT(exp)	3.45
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

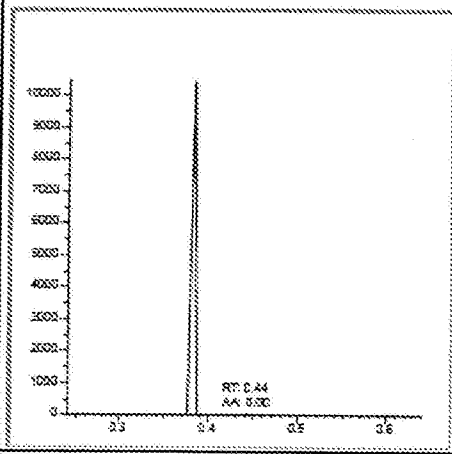
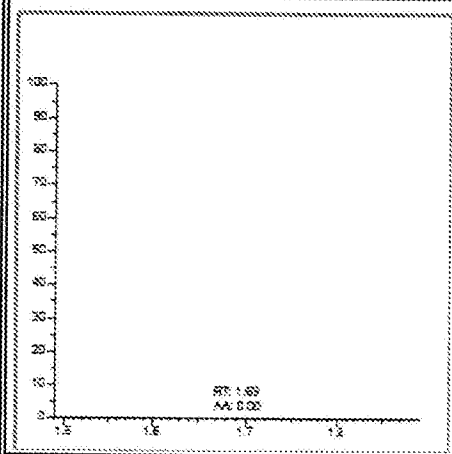
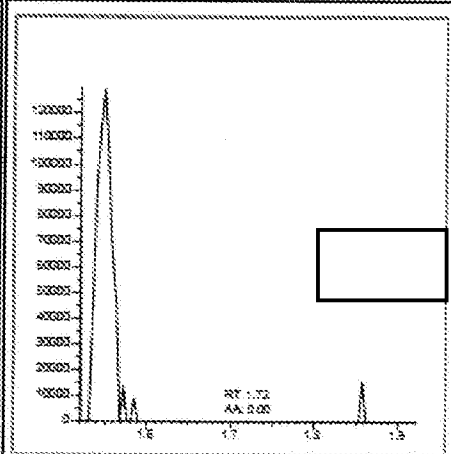
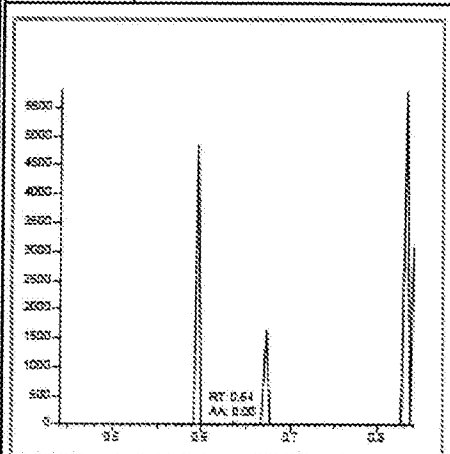
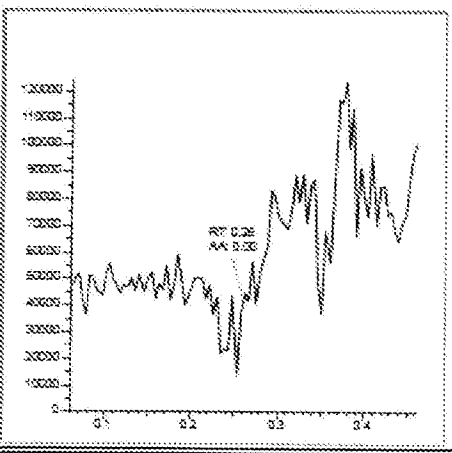
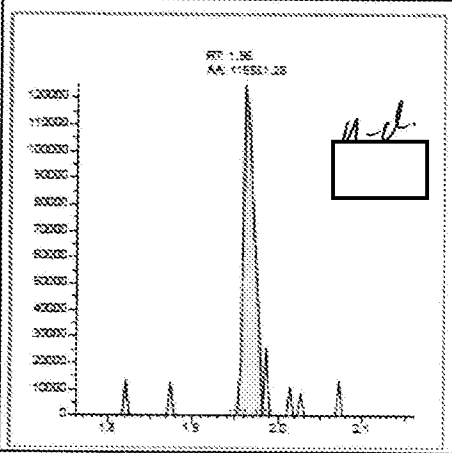
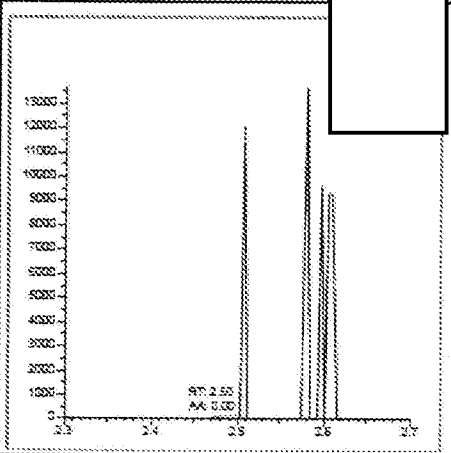
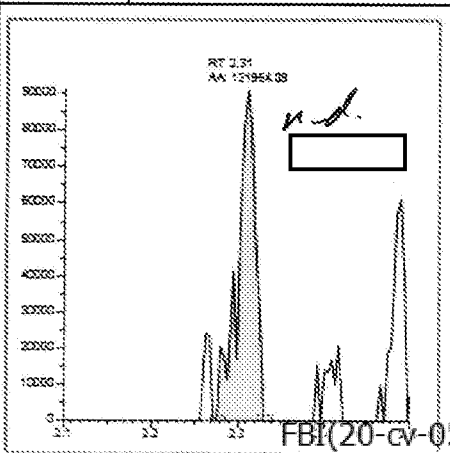
Compound:	<b>prazepam</b>	Compound:	<b>temazepam</b>	Compound:	<b>tetrazepam</b>	Compound:	<b>triazolam</b>
RT(exp)	5.33	RT(exp)	3.27	RT(exp)	3.68	RT(exp)	3.12
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

b6 -1  
b7C -1

Compound:	<b>6-acetylmorphine</b>	Compound:	<b>codeine</b>	Compound:	<b>dihydrocodeine</b>	Compound:	<b>dihydromorphine</b>
RT(exp)	1.77	RT(exp)	1.54	RT(exp)	1.5	RT(exp)	0.49
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

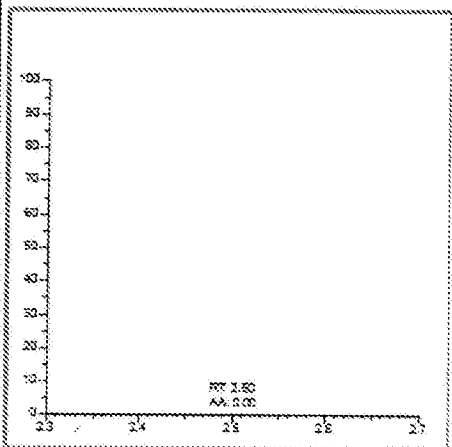
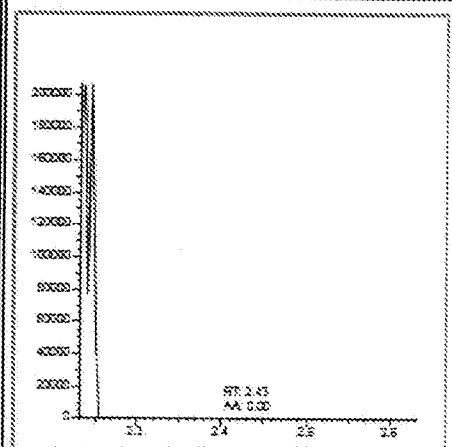
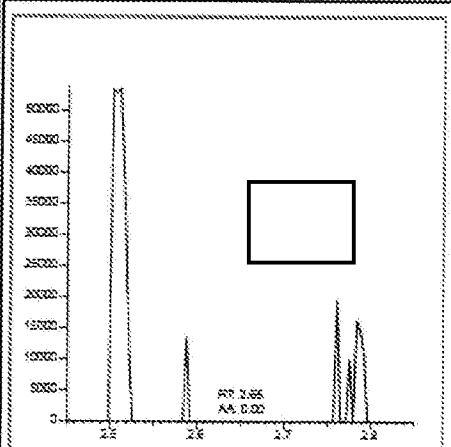
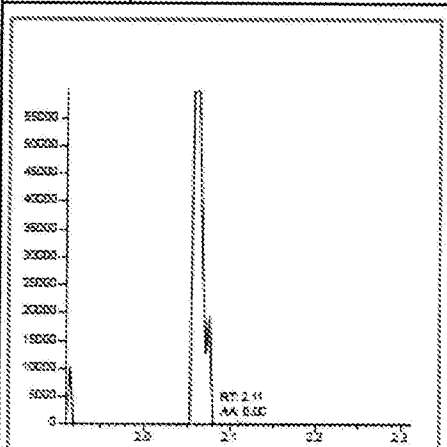
Compound:	<b>EDDP</b>	Compound:	<b>hydrocodone</b>	Compound:	<b>hydromorphone</b>	Compound:	<b>norcodeine</b>
RT(exp)	2.87	RT(exp)	1.8	RT(exp)	0.86	RT(exp)	1.46
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

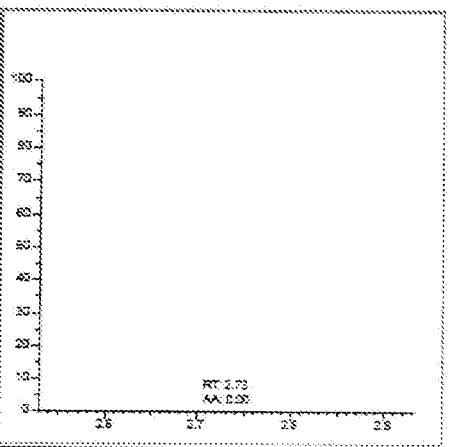
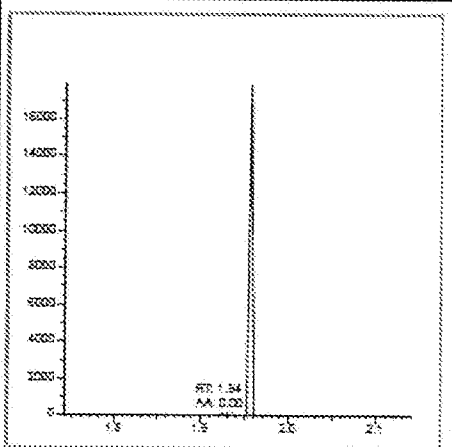
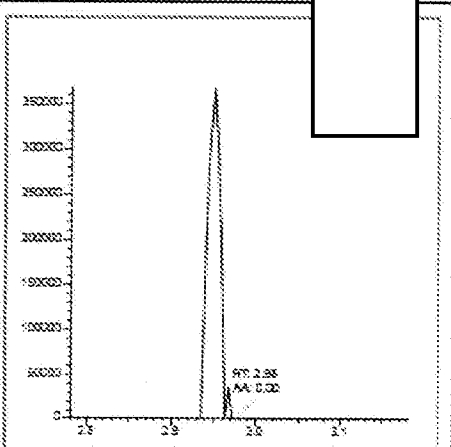
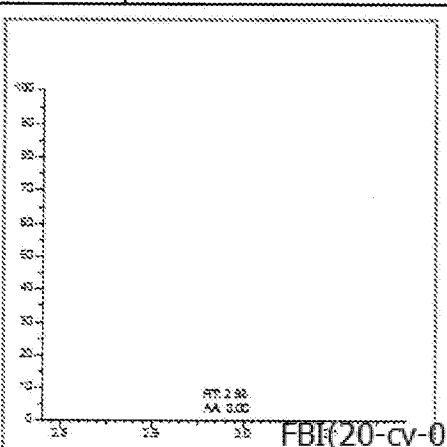
b6 -1  
 b7C -1

Compound: <b>normorphine</b>	Compound: <b>noroxycodone</b>	Compound: <b>oxycodone</b>	Compound: <b>oxymorphone</b>
RT(exp) 0.44	RT(exp) 1.69	RT(exp) 1.72	RT(exp) 0.64
RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)
Area: N/A	Area: N/A	Area: N/A	Area: N/A
m/z:	m/z:	m/z:	m/z:
delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A
			
Compound: <b>ecgonine methyl ester</b>	Compound: <b>benzoyllecgonine</b>	Compound: <b>cocaethylene</b>	Compound: <b>cocaine</b>
RT(exp) 0.26	RT(exp) 1.96	RT(exp) 2.5	RT(exp) 2.3
RT(delta) N/A (N/A)	RT(delta) 1.96 (0)	RT(delta) N/A (N/A)	RT(delta) 2.31 (0.01)
Area: N/A	Area: 115580	Area: N/A	Area: 131950
m/z:	m/z: 290.1390	m/z:	m/z: 304.1556
delta (mmu): N/A	delta (mmu): 0.33	delta (mmu): N/A	delta (mmu): 1.25
			

b6 -1  
b7C -1

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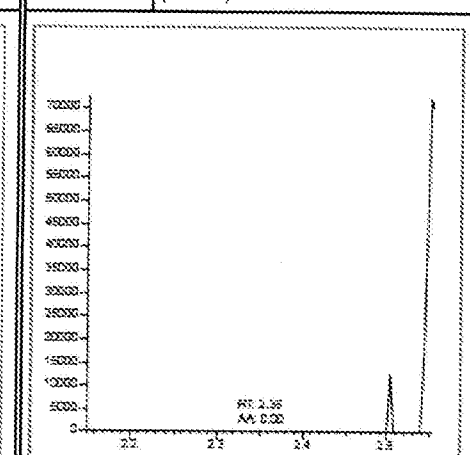
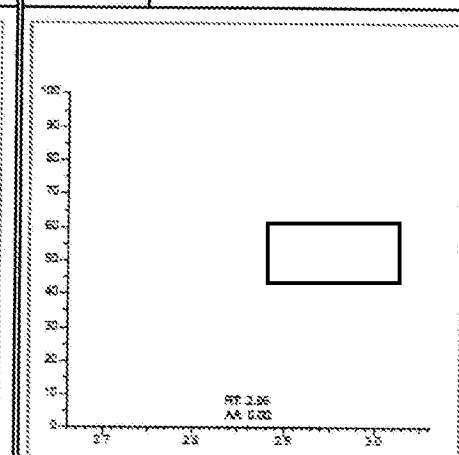
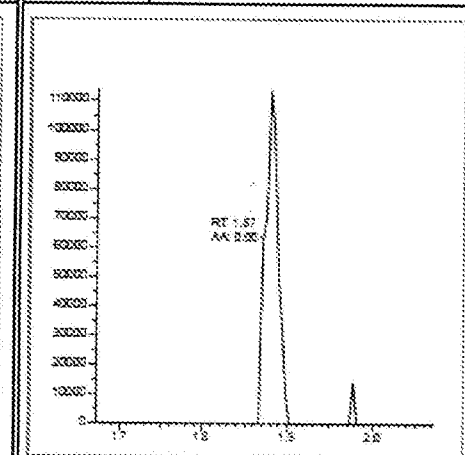
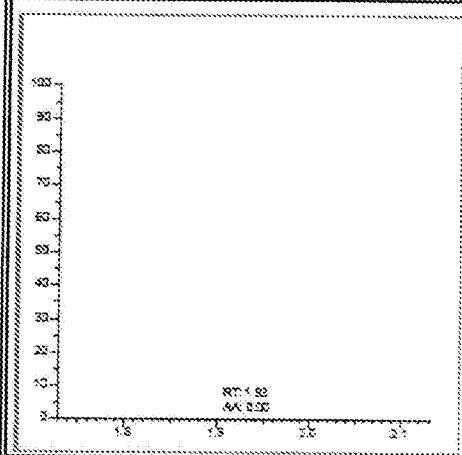
Compound:	<b>brompheniramine</b>	Compound:	<b>chlorpheniramine</b>	Compound:	<b>dextromethorphan</b>	Compound:	<b>dextrorphan</b>
RT(exp)	2.5	RT(exp)	2.43	RT(exp)	2.65	RT(exp)	2.11
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>diphenhydramine</b>	Compound:	<b>doxylamine</b>	Compound:	<b>hydroxyzine</b>	Compound:	<b>norchlorcyclizine</b>
RT(exp)	2.73	RT(exp)	1.94	RT(exp)	2.98	RT(exp)	2.98
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

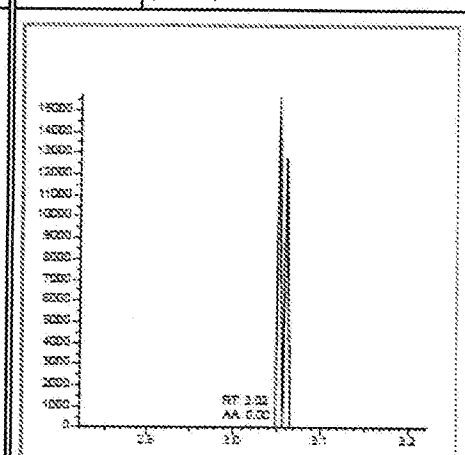
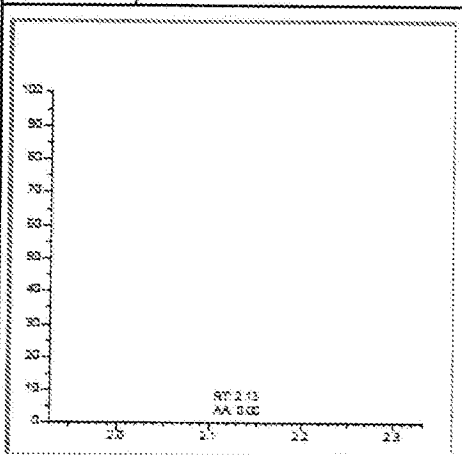
b6 -1  
 b7C -1

2017-00469, 1, blood

Compound:	<b>pheniramine</b>	Compound:	<b>tetrahydrozoline</b>	Compound:	<b>zaleplon</b>	Compound:	<b>zolpidem</b>
RT(exp)	1.93	RT(exp)	1.87	RT(exp)	2.86	RT(exp)	2.35
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A



Compound:	<b>zopiclone</b>	Compound:	<b>duloxetine</b>
RT(exp)	2.13	RT(exp)	3.02
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A
m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A



b6 -1  
 b7C -1

## Exclusionary Screening by UPLC/FTMS

Batch: 20170928

Method: ExclusionSOP\_TargetingScreening

Inst. Method:

Acquired: 9/28/2017 23:05

Sample Type: Unknown

Vial Position: 1:D,4

Lab Name: FBI Laboratory

Assay: Exclusionary Screening TOX 215

Sample \_\_\_\_\_ **sb**

Comment \_\_\_\_\_

File \_\_\_\_\_ 20170928\_32

Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	d5-alprazolam	+	N/A	N/A (N/A)	314.1215	N/A		N/A N/A	N/A	
	d5-hydroxalprazolam	+	N/A	N/A (N/A)	330.1165	N/A		N/A N/A	N/A	
	d4-clonazepam	+	N/A	N/A (N/A)	320.0735	N/A		N/A N/A	N/A	
	d4-7-aminoclonazepam	+	N/A	N/A (N/A)	290.0993	N/A		N/A N/A	N/A	
	d5-diazepam	+	N/A	N/A (N/A)	290.1103	N/A		N/A N/A	N/A	
	d5-oxazepam	+	N/A	N/A (N/A)	292.0896	N/A		N/A N/A	N/A	
	d6-zolpidem	+	N/A	N/A (N/A)	314.2134	N/A		N/A N/A	N/A	
	d3-benzoylecgonine	+	N/A	N/A (N/A)	293.1575	N/A		N/A N/A	N/A	
	d3-diphenhydramine	+	N/A	N/A (N/A)	259.1884	N/A		N/A N/A	N/A	
	d6-oxycodone	+	N/A	N/A (N/A)	322.1920	N/A		N/A N/A	N/A	
	d3-morphine	+	N/A	N/A (N/A)	289.1626	N/A		N/A N/A	N/A	
	d3-hydrocodone	+	N/A	N/A (N/A)	303.1783	N/A		N/A N/A	N/A	
	morphine	+	N/A	N/A (N/A)	286.1438	N/A		N/A N/A	N/A	
	hydroxalprazolam	+	N/A	N/A (N/A)	325.0851	N/A		N/A N/A	N/A	
	hydroxymidazolam	+	N/A	N/A (N/A)	342.0804	N/A		N/A N/A	N/A	
	hydroxytriazolam	+	N/A	N/A (N/A)	359.0461	N/A		N/A N/A	N/A	
	7-aminoclonazepam	+	N/A	N/A (N/A)	286.0742	N/A		N/A N/A	N/A	
	7-aminoflunitrazepam	+	N/A	N/A (N/A)	284.1194	N/A		N/A N/A	N/A	
	alprazolam	+	N/A	N/A (N/A)	309.0902	N/A		N/A N/A	N/A	
	bromazepam	+	N/A	N/A (N/A)	316.0080	N/A		N/A N/A	N/A	
	chlordiazepoxide	+	N/A	N/A (N/A)	300.0898	N/A		N/A N/A	N/A	
	clonazepam	+	N/A	N/A (N/A)	316.0484	N/A		N/A N/A	N/A	
	desalkylflurazepam	+	N/A	N/A (N/A)	289.0539	N/A		N/A N/A	N/A	
	desmethyflunitrazepam	+	N/A	N/A (N/A)	300.0779	N/A		N/A N/A	N/A	
	diazepam	+	N/A	N/A (N/A)	285.0789	N/A		N/A N/A	N/A	
	estazolam	+	N/A	N/A (N/A)	295.0745	N/A		N/A N/A	N/A	
	etizolam	+	N/A	N/A (N/A)	343.0779	N/A		N/A N/A	N/A	
	flunitrazepam	+	N/A	N/A (N/A)	314.0936	N/A		N/A N/A	N/A	
	flurazepam	+	N/A	N/A (N/A)	388.1586	N/A		N/A N/A	N/A	

b7E -2

b6 -1  
b7C -1

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## Exclusionary Screening by UPLC/FTMS

Batch: 20170928

Sample \_\_\_\_\_ **sb**

Method: ExclusionSOP\_TargetingScreening

Inst. Method:

Comment \_\_\_\_\_

Acquired: 9/28/2017 23:05

Sample Type: Unknown

Lab Name: FBI Laboratory

File 20170928\_32

Vial Position 1:D.4

Assay: Exclusionary Screening TOX 215

b7E -2

Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	lorazepam	+	N/A	N/A (N/A)	321.0192	N/A		N/A N/A	N/A	
	lormetazepam	+	N/A	N/A (N/A)	335.0349	N/A		N/A N/A	N/A	
	medazepam	+	N/A	N/A (N/A)	271.0997	N/A		N/A N/A	N/A	
	midazolam	+	N/A	N/A (N/A)	326.0855	N/A		N/A N/A	N/A	
	nordiazepam	+	N/A	N/A (N/A)	271.0633	N/A		N/A N/A	N/A	
	oxazepam	+	N/A	N/A (N/A)	287.0582	N/A		N/A N/A	N/A	
	phenazepam	+	N/A	N/A (N/A)	348.9738	N/A		N/A N/A	N/A	
	prazepam	+	N/A	N/A (N/A)	325.1102	N/A		N/A N/A	N/A	
	temazepam	+	N/A	N/A (N/A)	301.0738	N/A		N/A N/A	N/A	
	tetrazepam	+	N/A	N/A (N/A)	289.1102	N/A		N/A N/A	N/A	
	triazolam	+	N/A	N/A (N/A)	343.0512	N/A		N/A N/A	N/A	
	6-acetylmorphine	+	N/A	N/A (N/A)	328.1543	N/A		N/A N/A	N/A	
	codeine	+	N/A	N/A (N/A)	300.1594	N/A		N/A N/A	N/A	
	dihydrocodeine	+	N/A	N/A (N/A)	302.1751	N/A		N/A N/A	N/A	
	dihydromorphone	+	N/A	N/A (N/A)	288.1594	N/A		N/A N/A	N/A	
	EDDP	+	N/A	N/A (N/A)	278.1903	N/A		N/A N/A	N/A	
	hydrocodone	+	N/A	N/A (N/A)	300.1594	N/A		N/A N/A	N/A	
	hydromorphone	+	N/A	N/A (N/A)	286.1438	N/A		N/A N/A	N/A	
	norcodeine	+	N/A	N/A (N/A)	286.1438	N/A		N/A N/A	N/A	
	normorphine	+	N/A	N/A (N/A)	272.1281	N/A		N/A N/A	N/A	
	noroxycodone	+	N/A	N/A (N/A)	302.1387	N/A		N/A N/A	N/A	
	oxycodone	+	N/A	N/A (N/A)	316.1543	N/A		N/A N/A	N/A	
	oxymorphone	+	N/A	N/A (N/A)	302.1387	N/A		N/A N/A	N/A	
	ecgonine methyl ester	+	N/A	N/A (N/A)	200.1281	N/A		N/A N/A	N/A	
	benzoylecgonine	+	N/A	N/A (N/A)	290.1387	N/A		N/A N/A	N/A	
	cocaethylene	+	N/A	N/A (N/A)	318.1700	N/A		N/A N/A	N/A	
	cocaine	+	N/A	N/A (N/A)	304.1543	N/A		N/A N/A	N/A	
	brompheniramine	+	N/A	N/A (N/A)	319.0804	N/A		N/A N/A	N/A	
	chlorpheniramine	+	N/A	N/A (N/A)	275.1310	N/A		N/A N/A	N/A	

b6 -1  
b7C -1

## Exclusionary Screening by UPLC/FTMS

Batch: 20170928

Method: ExclusionSOP\_TargetingScreening

Inst. Method:

Acquired: 9/28/2017 23:05

Sample Type: Unknown

Vial Position: 1:D.4

Lab Name: FBI Laboratory

Assay: Exclusionary Screening TOX 215

Sample \_\_\_\_\_ **sb**

Comment \_\_\_\_\_

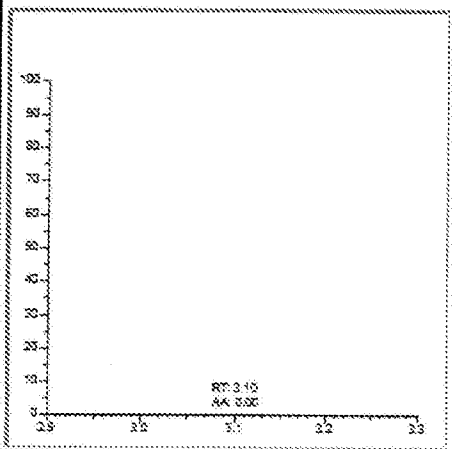
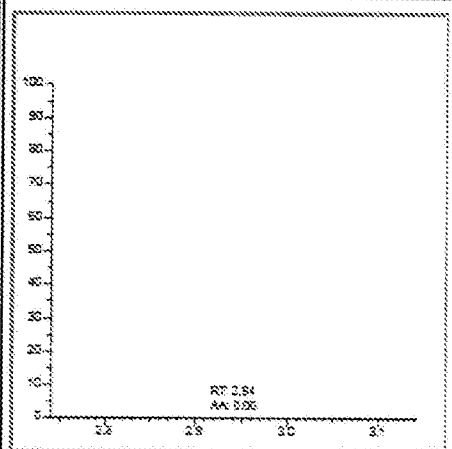
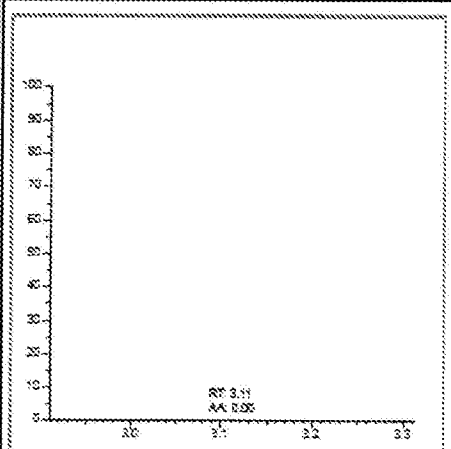
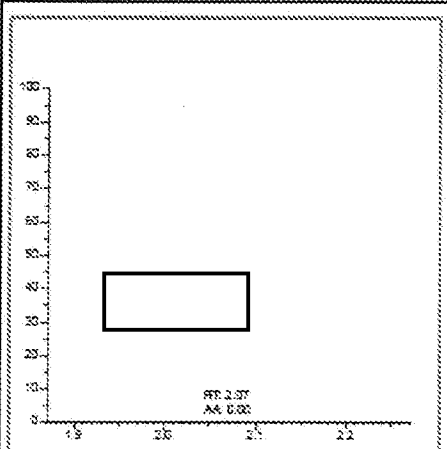
File \_\_\_\_\_ 20170928\_32

Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	dextromethorphan	+	N/A	N/A (N/A)	272.2009	N/A		N/A N/A	N/A	
	dextrorphan	+	N/A	N/A (N/A)	258.1852	N/A		N/A N/A	N/A	
	diphenhydramine	+	N/A	N/A (N/A)	256.1696	N/A		N/A N/A	N/A	
	doxylamine	+	N/A	N/A (N/A)	271.1805	N/A		N/A N/A	N/A	
	hydroxyzine	+	N/A	N/A (N/A)	375.1834	N/A		N/A N/A	N/A	
	norchlorcyclizine	+	N/A	N/A (N/A)	287.1310	N/A		N/A N/A	N/A	
	pheniramine	+	N/A	N/A (N/A)	241.1699	N/A		N/A N/A	N/A	
	tetrahydrozoline	+	N/A	N/A (N/A)	201.1386	N/A		N/A N/A	N/A	
	zaleplon	+	N/A	N/A (N/A)	306.1349	N/A		N/A N/A	N/A	
	zolpidem	+	N/A	N/A (N/A)	308.1757	N/A		N/A N/A	N/A	
	zopiclone	+	N/A	N/A (N/A)	389.1123	N/A		N/A N/A	N/A	
	duloxetine	+	N/A	N/A (N/A)	298.1260	N/A		N/A N/A	N/A	

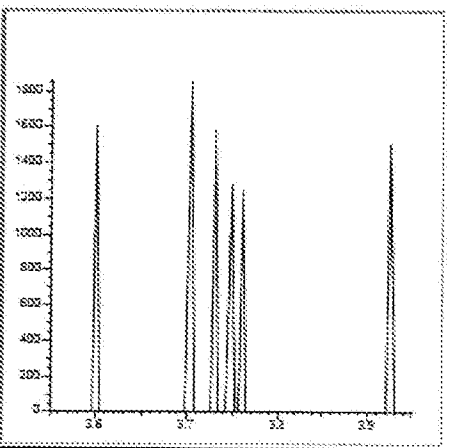
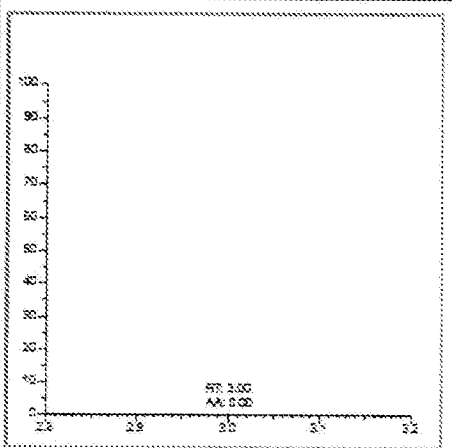
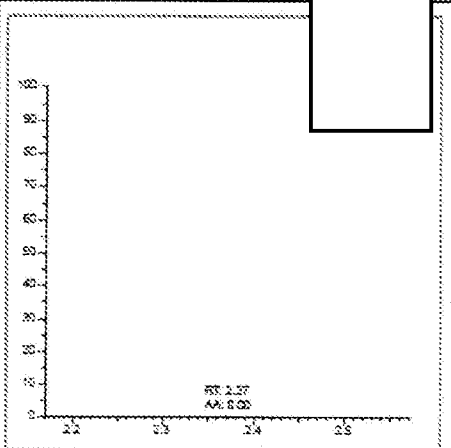
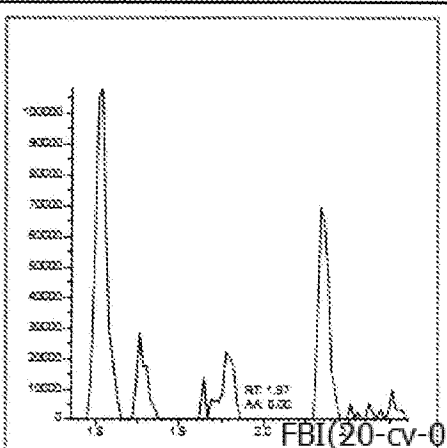
b7E -2

b6 -1  
b7C -1

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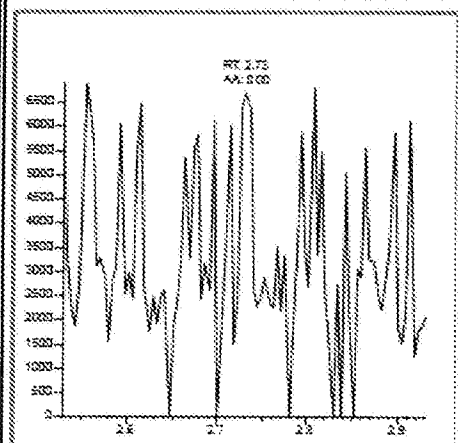
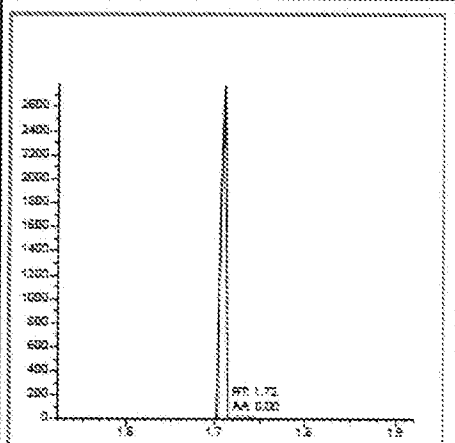
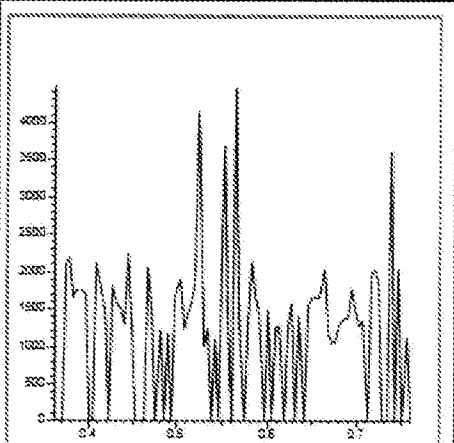
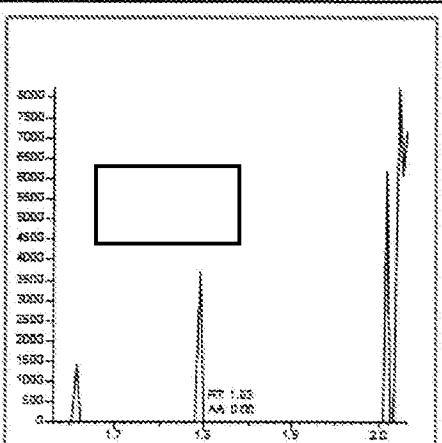
Compound:	<b>d5-alprazolam</b>	Compound:	<b>d5-hydroxalprazolam</b>	Compound:	<b>d4-clonazepam</b>	Compound:	<b>d4-7-aminoclonazepam</b>
RT(exp)	3.1	RT(exp)	2.94	RT(exp)	3.11	RT(exp)	2.07
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

b6 -1  
 b7C -1

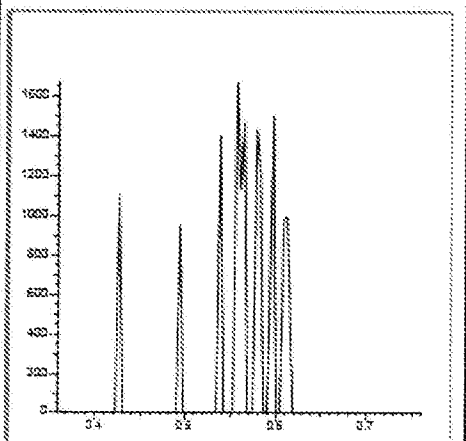
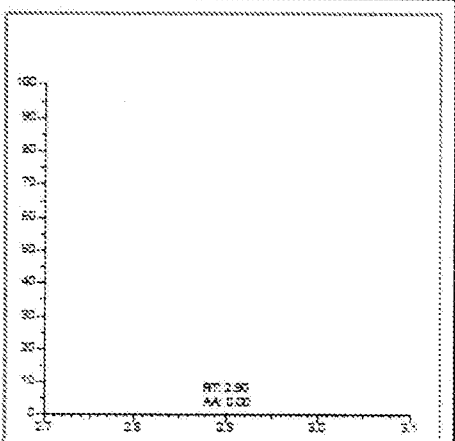
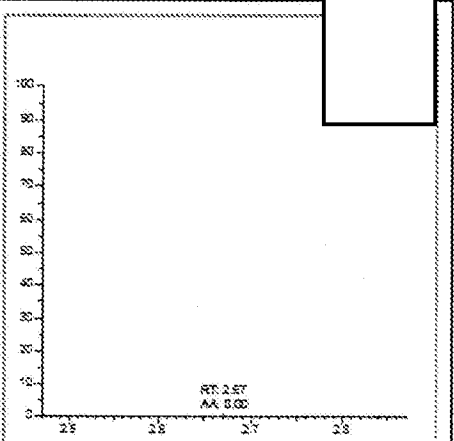
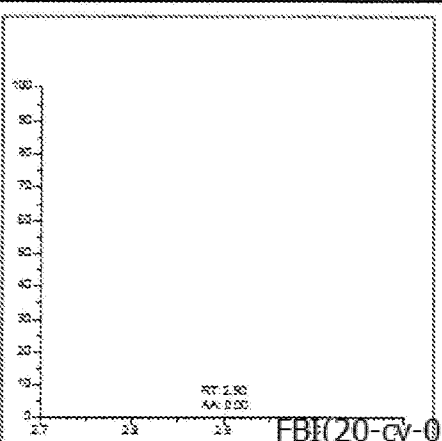
Compound:	<b>d5-diazepam</b>	Compound:	<b>d5-oxazepam</b>	Compound:	<b>d6-zolpidem</b>	Compound:	<b>d3-benzoyllecgonine</b>
RT(exp)	3.75	RT(exp)	3	RT(exp)	2.37	RT(exp)	1.97
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

b6 -1  
 b7C -1

2017-00469 1027-2017

Compound:	<b>d3-diphenhydramine</b>	Compound:	<b>d6-oxycodone</b>	Compound:	<b>d3-morphine</b>	Compound:	<b>d3-hydrocodone</b>
RT(exp)	2.73	RT(exp)	1.72	RT(exp)	0.56	RT(exp)	1.83
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

b6 -1  
 b7C -1

Compound:	<b>morphine</b>	Compound:	<b>hydroxylprazolam</b>	Compound:	<b>hydroxymidazolam</b>	Compound:	<b>hydroxytriazolam</b>
RT(exp)	0.56	RT(exp)	2.9	RT(exp)	2.67	RT(exp)	2.9
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

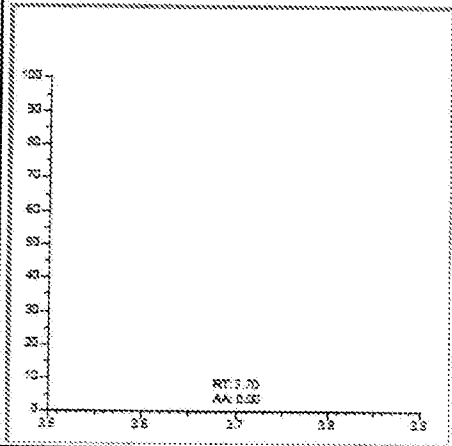
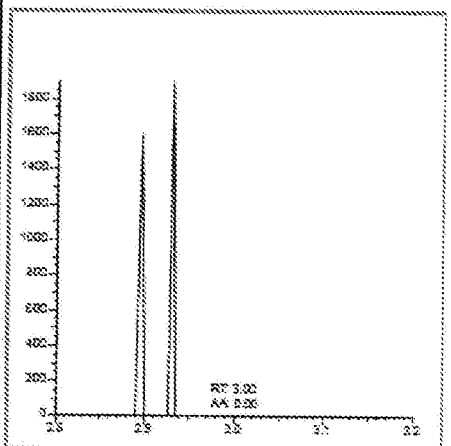
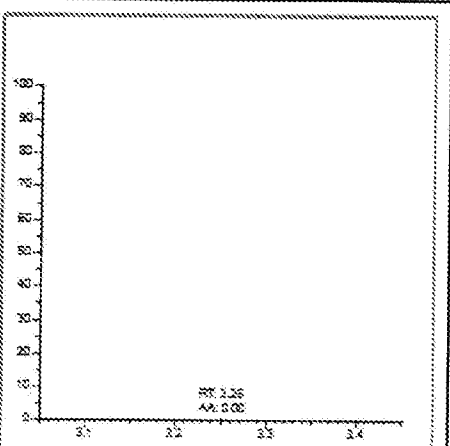
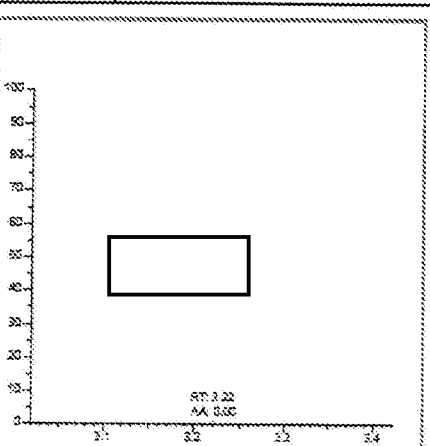
sb

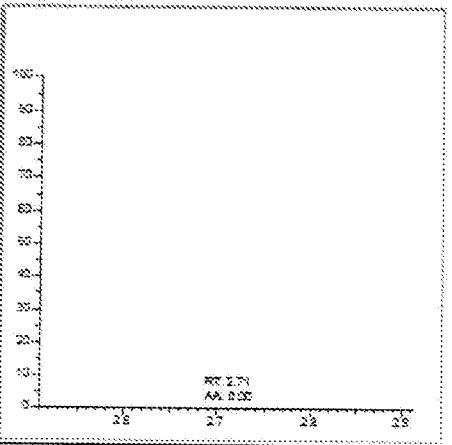
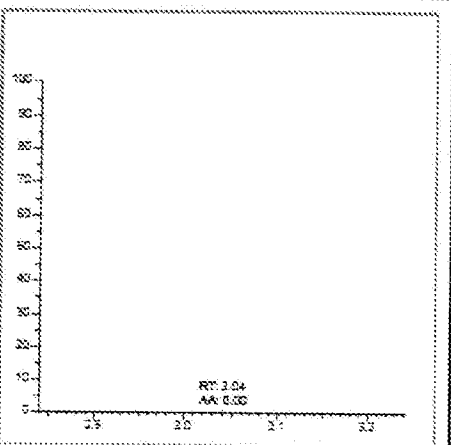
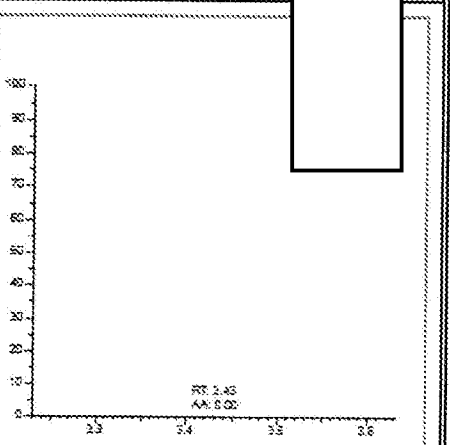
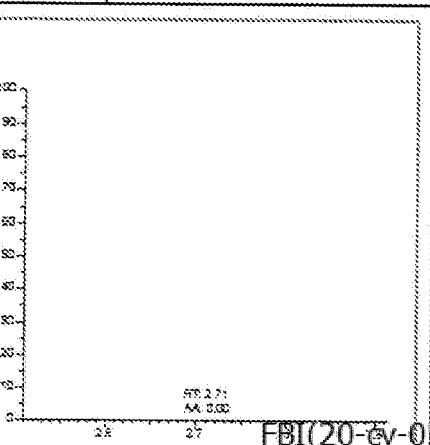
Compound:	<b>7-aminoclonazepam</b>	Compound:	<b>7-aminoflunitrazepam</b>	Compound:	<b>alprazolam</b>	Compound:	<b>bromazepam</b>
RT(exp)	2.07	RT(exp)	2.27	RT(exp)	3.1	RT(exp)	2.66
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A

Compound:	<b>chlordiazepoxide</b>	Compound:	<b>clonazepam</b>	Compound:	<b>desalkylflurazepam</b>	Compound:	<b>desmethylflunitrazepam</b>
RT(exp)	2.46	RT(exp)	3.07	RT(exp)	3.19	RT(exp)	2.95
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A

b6 -1  
b7C -1

sb

Compound: <b>diazepam</b>	Compound: <b>estazolam</b>	Compound: <b>etizolam</b>	Compound: <b>flunitrazepam</b>
RT(exp) 3.7	RT(exp) 3	RT(exp) 3.25	RT(exp) 3.22
RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)
Area: N/A	Area: N/A	Area: N/A	Area: N/A
m/z:	m/z:	m/z:	m/z:
delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A
			

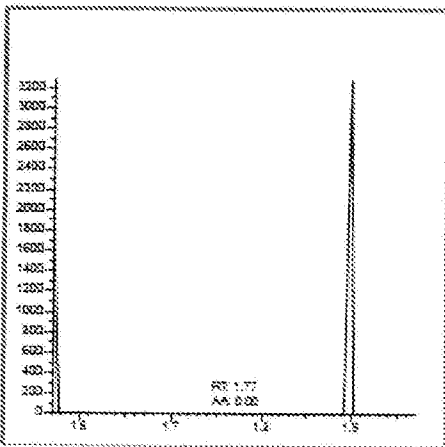
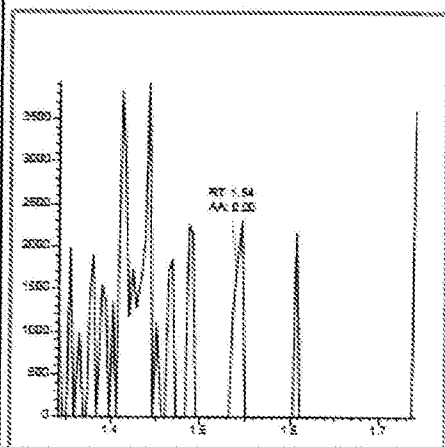
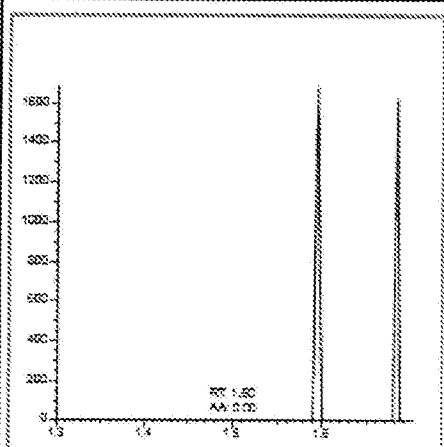
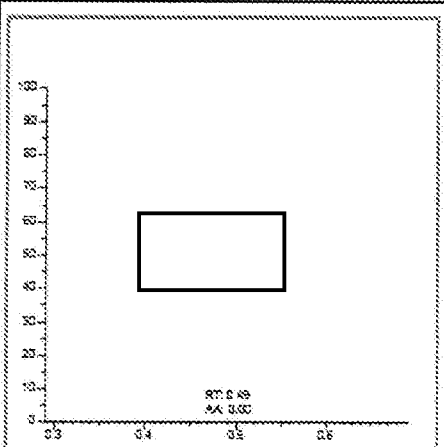
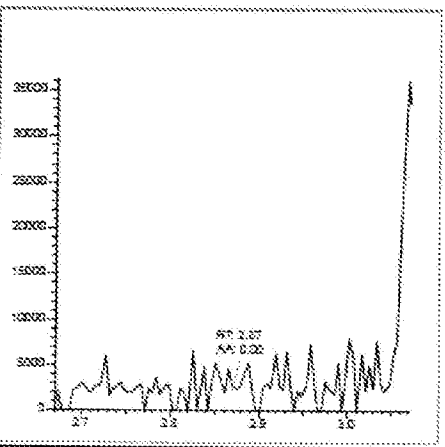
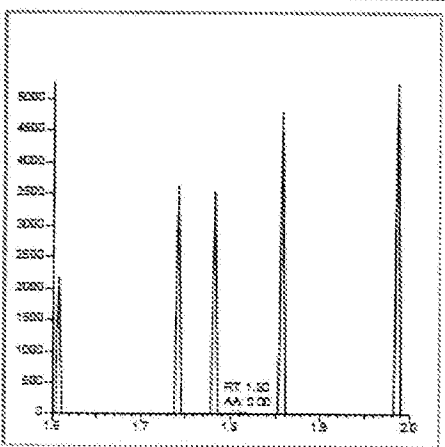
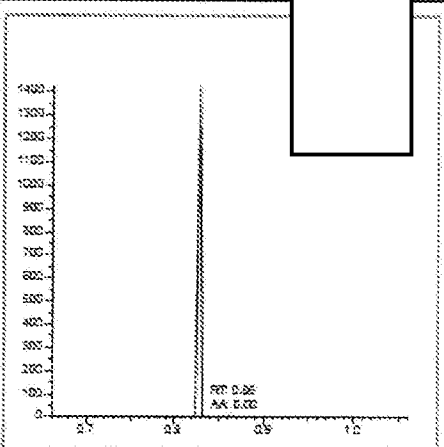
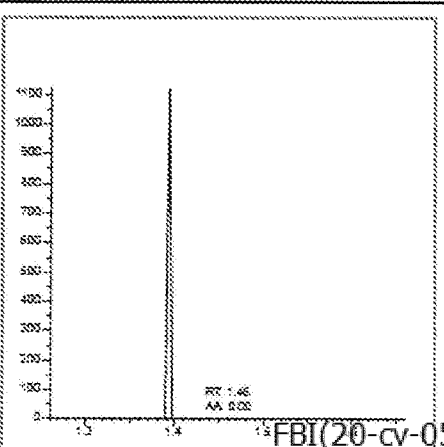
Compound: <b>flurazepam</b>	Compound: <b>lorazepam</b>	Compound: <b>lormetazepam</b>	Compound: <b>medazepam</b>
RT(exp) 2.71	RT(exp) 3.04	RT(exp) 3.43	RT(exp) 2.71
RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)
Area: N/A	Area: N/A	Area: N/A	Area: N/A
m/z:	m/z:	m/z:	m/z:
delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A
			

b6 -1  
b7C -1

Compound:	<b>midazolam</b>	Compound:	<b>nordiazepam</b>	Compound:	<b>oxazepam</b>	Compound:	<b>phenazepam</b>
RT(exp)	2.67	RT(exp)	3.19	RT(exp)	2.98	RT(exp)	3.45
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A

Compound:	<b>prazepam</b>	Compound:	<b>femazepam</b>	Compound:	<b>tetrazepam</b>	Compound:	<b>triazolam</b>
RT(exp)	5.33	RT(exp)	3.27	RT(exp)	3.68	RT(exp)	3.12
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A

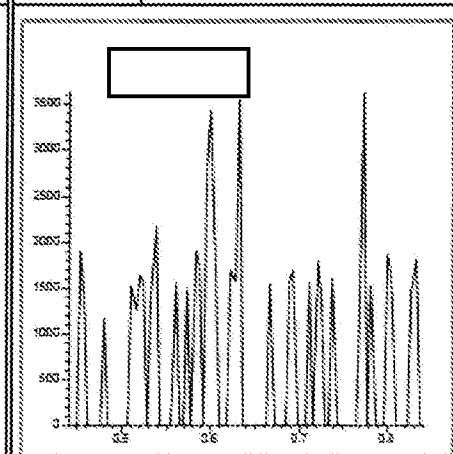
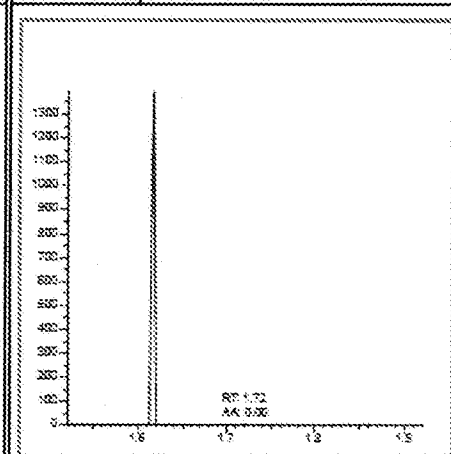
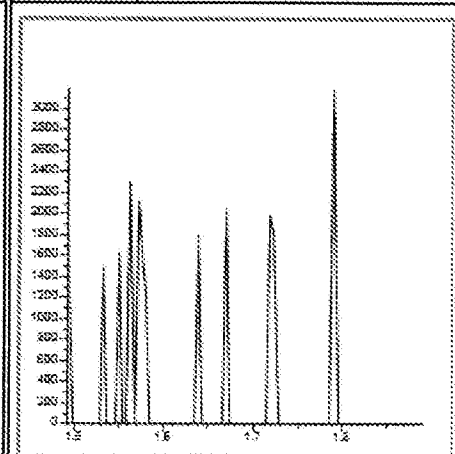
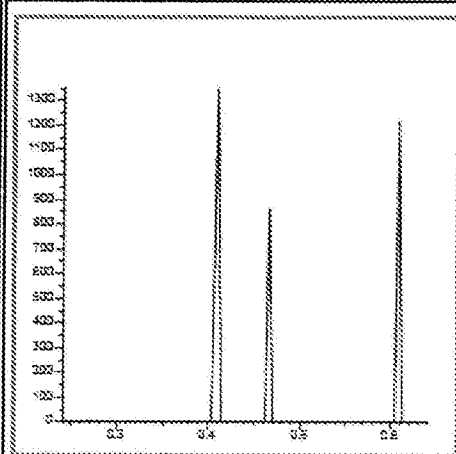
b6 -1  
b7C -1

Compound: <b>6-acetylmorphine</b>	Compound: <b>codeine</b>	Compound: <b>dihydrocodeine</b>	Compound: <b>dihydromorphone</b>
RT(exp) 1.77	RT(exp) 1.54	RT(exp) 1.5	RT(exp) 0.49
RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)
Area: N/A	Area: N/A	Area: N/A	Area: N/A
m/z:	m/z:	m/z:	m/z:
delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A
			
Compound: <b>EDDP</b>	Compound: <b>hydrocodone</b>	Compound: <b>hydromorphone</b>	Compound: <b>norcodeine</b>
RT(exp) 2.87	RT(exp) 1.8	RT(exp) 0.86	RT(exp) 1.46
RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)
Area: N/A	Area: N/A	Area: N/A	Area: N/A
m/z:	m/z:	m/z:	m/z:
delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A
			

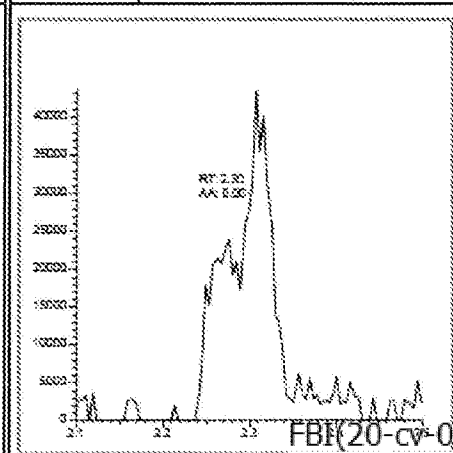
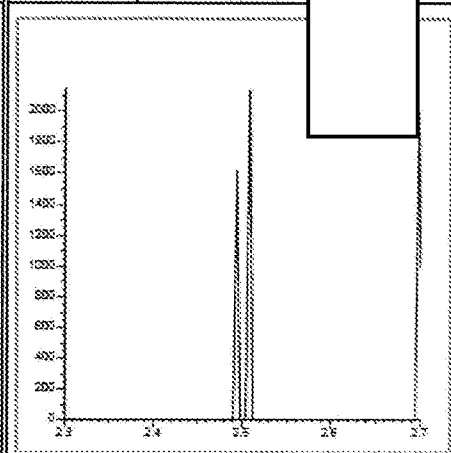
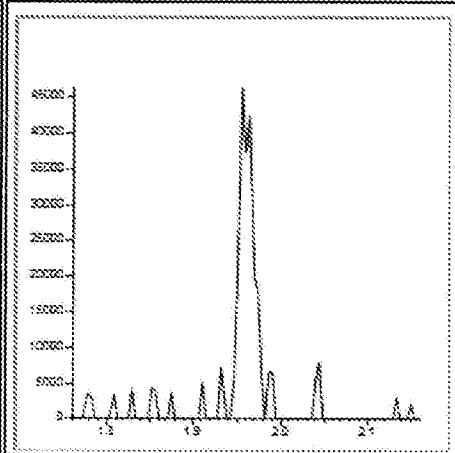
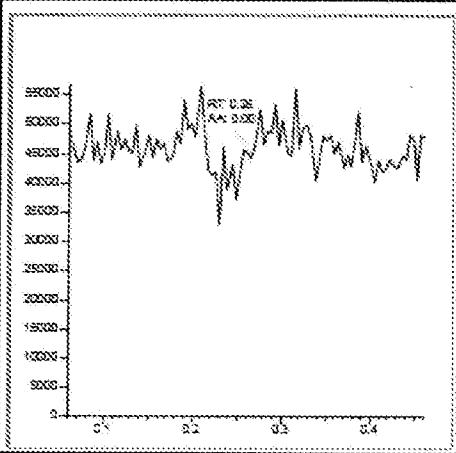
b6 -1  
b7C -1



Compound:	<b>normorphine</b>	Compound:	<b>noroxycodone</b>	Compound:	<b>oxycodone</b>	Compound:	<b>oxymorphone</b>
RT(exp)	0.44	RT(exp)	1.69	RT(exp)	1.72	RT(exp)	0.64
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A



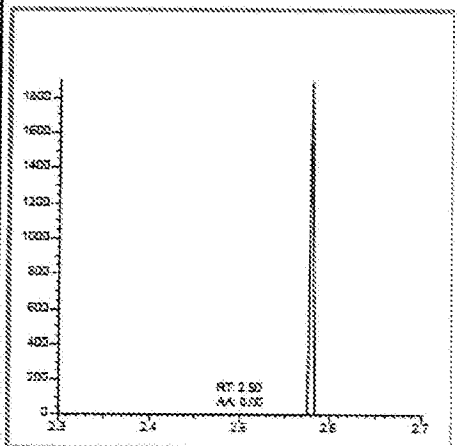
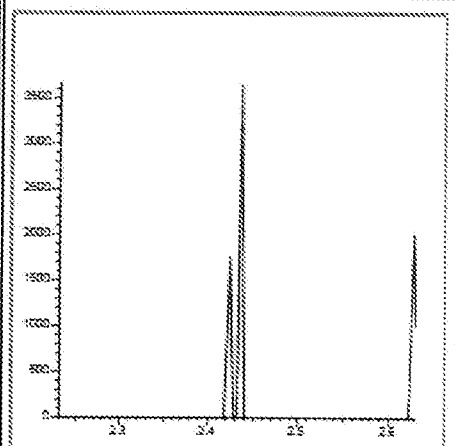
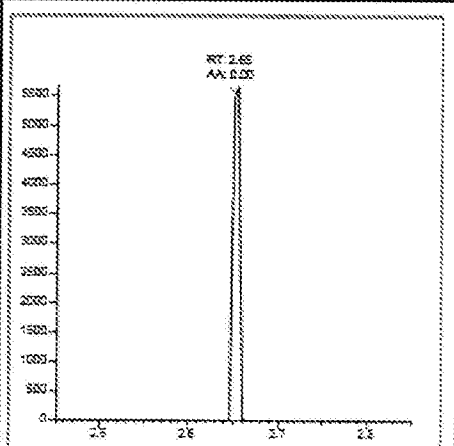
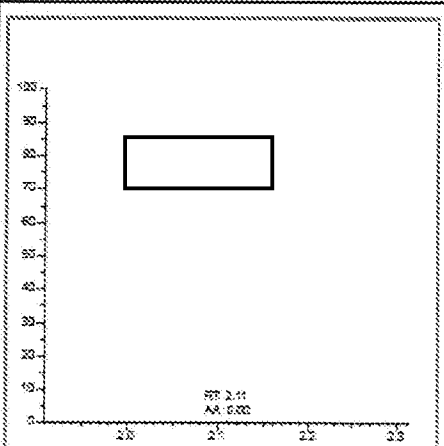
Compound:	<b>ecgonine methyl ester</b>	Compound:	<b>benzoylecgonine</b>	Compound:	<b>cocaethylene</b>	Compound:	<b>cocaine</b>
RT(exp)	0.26	RT(exp)	1.96	RT(exp)	2.5	RT(exp)	2.3
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A

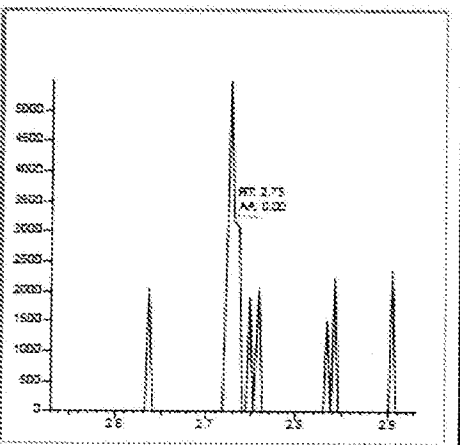
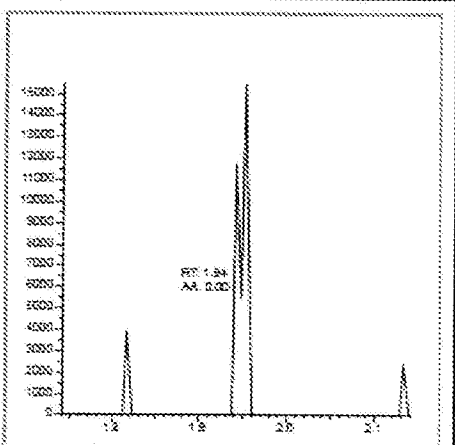
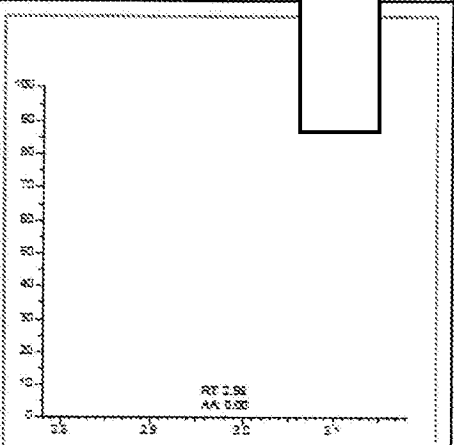
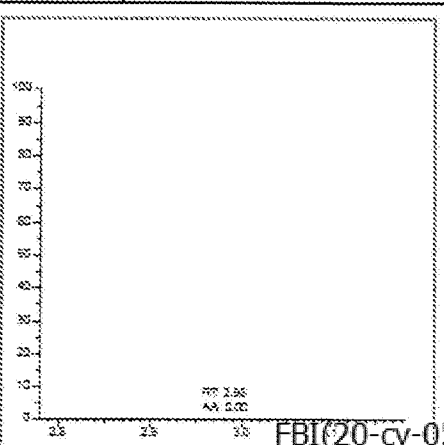


b6 -1  
 b7C -1

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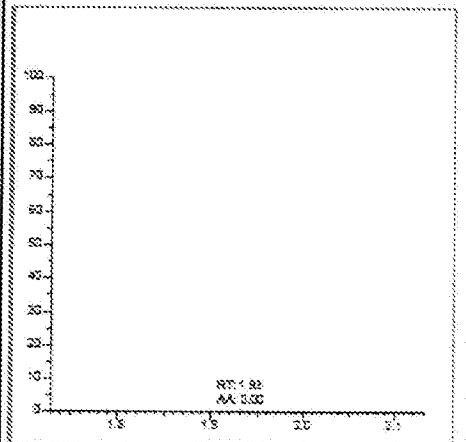
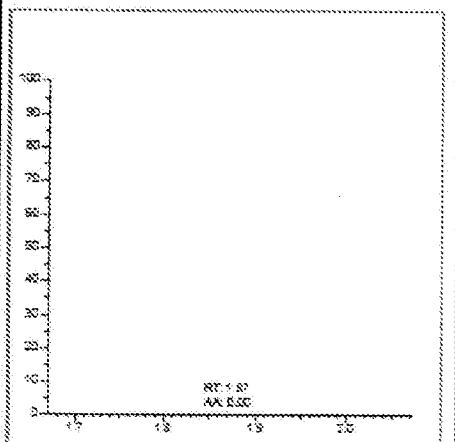
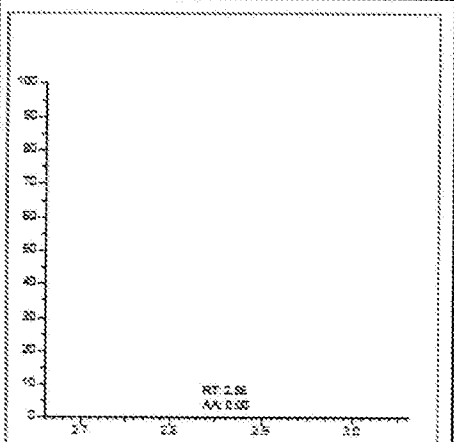
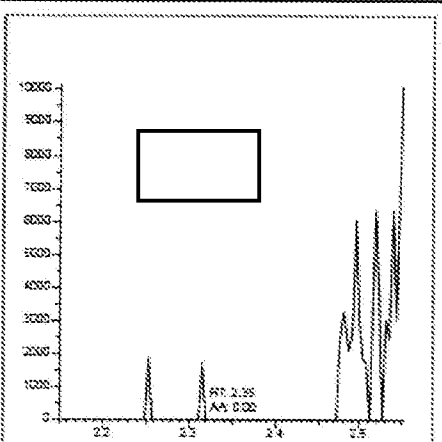
sb

Compound:	<b>brompheniramine</b>	Compound:	<b>chlorpheniramine</b>	Compound:	<b>dextromethorphan</b>	Compound:	<b>dextrorphan</b>
RT(exp)	2.5	RT(exp)	2.43	RT(exp)	2.65	RT(exp)	2.11
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

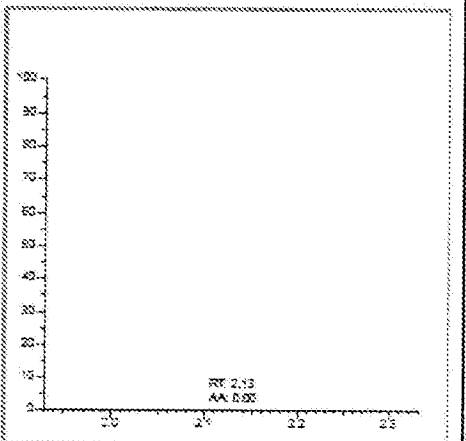
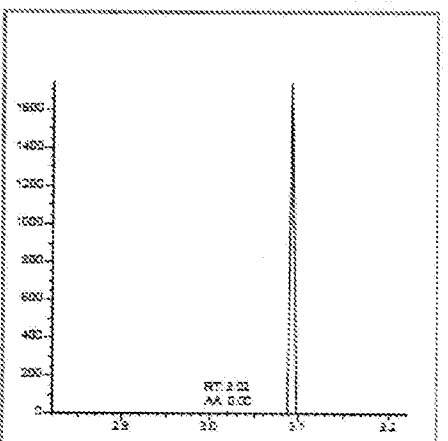
Compound:	<b>diphenhydramine</b>	Compound:	<b>doxylamine</b>	Compound:	<b>hydroxyzine</b>	Compound:	<b>norchlorcyclizine</b>
RT(exp)	2.73	RT(exp)	1.94	RT(exp)	2.98	RT(exp)	2.98
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

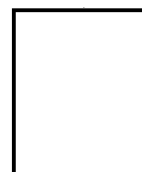
b6 -1  
b7C -1

sb

Compound:	<b>pheniramine</b>	Compound:	<b>tetrahydrozoline</b>	Compound:	<b>zaleplon</b>	Compound:	<b>zolpidem</b>
RT(exp)	1.93	RT(exp)	1.87	RT(exp)	2.86	RT(exp)	2.35
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

b6 -1  
 b7C -1

Compound:	<b>zopiclone</b>	Compound:	<b>duloxetine</b>
RT(exp)	2.13	RT(exp)	3.02
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A
m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A
			



## Exclusionary Screening by UPLC/FTMS

Batch: 20170928

Method: ExclusionSOP\_TargetingScreening

Inst. Method:

Acquired: 9/28/2017 23:50

Sample Type: Unknown

Vial Position: 1:D.8

Lab Name: FBI Laboratory

Assay: Exclusionary Screening TOX 215

Sample: 2017-00469, 3, blood

Comment:

File: 20170928\_36

Detected	Target Name	+/	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
●	d5-alprazolam	+	1.69E+07	3.07 (-0.03)	314.1215	314.1220	0.45	100.00	6 of 8	
●	d5-hydroxalprazolam	+	2.82E+06	2.9 (-0.04)	330.1165	330.1170	0.58	100.00	5 of 6	
●	d4-clonazepam	+	5.26E+05	3.07 (-0.04)	320.0735	320.0739	0.46	100.00	4 of 5	
●	d4-7-aminoclonazepam	+	5.37E+06	2.06 (-0.01)	290.0993	290.0997	0.43	100.00	6 of 6	
●	d5-diazepam	+	1.15E+07	3.7 (-0.05)	290.1103	290.1106	0.30	100.00	6 of 7	
●	d5-oxazepam	+	9.38E+05	2.98 (-0.02)	292.0896	292.0901	0.52	100.00	6 of 6	
●	d6-zolpidem	+	9.36E+06	2.35 (-0.02)	314.2134	314.2136	0.16	100.00	3 of 3	
●	d3-benzoylecgonine	+	7.22E+07	1.96 (-0.01)	293.1575	293.1577	0.17	100.00	5 of 5	
●	d3-diphenhydramine	+	4.56E+06	2.73 (0)	259.1884	259.1889	0.45	100.00	3 of 4	
●	d6-oxycodone	+	1.34E+07	1.71 (-0.01)	322.1920	322.1924	0.35	100.00	4 of 4	
●	d3-morphine	+	1.31E+07	0.56 (0)	289.1626	289.1630	0.36	100.00	4 of 4	
●	d3-hydrocodone	+	1.19E+07	1.8 (-0.03)	303.1783	303.1786	0.34	100.00	3 of 4	
	morphine	+	N/A	N/A (N/A)	286.1438	N/A	N/A	N/A	N/A	
	hydroxalprazolam	+	N/A	N/A (N/A)	325.0851	N/A	N/A	N/A	N/A	
	hydroxymidazolam	+	N/A	N/A (N/A)	342.0804	N/A	N/A	N/A	N/A	
	hydroxytriazolam	+	N/A	N/A (N/A)	359.0461	N/A	N/A	N/A	N/A	
	7-aminoclonazepam	+	N/A	N/A (N/A)	286.0742	N/A	N/A	N/A	N/A	
	7-aminoflunitrazepam	+	N/A	N/A (N/A)	284.1194	N/A	N/A	N/A	N/A	
	alprazolam	+	N/A	N/A (N/A)	309.0902	N/A	N/A	N/A	N/A	
	bromazepam	+	N/A	N/A (N/A)	316.0080	N/A	N/A	N/A	N/A	
	chlordiazepoxide	+	N/A	N/A (N/A)	300.0898	N/A	N/A	N/A	N/A	
	clonazepam	+	N/A	N/A (N/A)	316.0484	N/A	N/A	N/A	N/A	
	desalkylflurazepam	+	N/A	N/A (N/A)	289.0539	N/A	N/A	N/A	N/A	
	desmethylflunitrazepam	+	N/A	N/A (N/A)	300.0779	N/A	N/A	N/A	N/A	
	diazepam	+	N/A	N/A (N/A)	285.0789	N/A	N/A	N/A	N/A	
	estazolam	+	N/A	N/A (N/A)	295.0745	N/A	N/A	N/A	N/A	
	etizolam	+	N/A	N/A (N/A)	343.0779	N/A	N/A	N/A	N/A	
	flunitrazepam	+	N/A	N/A (N/A)	314.0936	N/A	N/A	N/A	N/A	
	flurazepam	+	N/A	N/A (N/A)	388.1586	N/A	N/A	N/A	N/A	

b7E -2

b6 -1  
b7C -1

2017-00469 1027-2017

## Exclusionary Screening by UPLC/FTMS

Batch: 20170928  
 Method: ExclusionSOP\_TargetingScreening  
 Inst. Method:  
 Acquired: 9/28/2017 23:50  
 Sample Type: Unknown  
 Vial Position: 1:D.8

Lab Name: FBI Laboratory  
 Assay: Exclusionary Screening TOX 215

Sample: 2017-00469, 3, blood  
 Comment:  
 File: 20170928\_36

Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	lorazepam	+	N/A	N/A (N/A)	321.0192	N/A		N/A N/A	N/A	
	lormetazepam	+	N/A	N/A (N/A)	335.0349	N/A		N/A N/A	N/A	
	medazepam	+	N/A	N/A (N/A)	271.0997	N/A		N/A N/A	N/A	
	midazolam	+	N/A	N/A (N/A)	326.0855	N/A		N/A N/A	N/A	
	nordiazepam	+	N/A	N/A (N/A)	271.0633	N/A		N/A N/A	N/A	
	oxazepam	+	N/A	N/A (N/A)	287.0582	N/A		N/A N/A	N/A	
	phenazepam	+	N/A	N/A (N/A)	348.9738	N/A		N/A N/A	N/A	
	prazepam	+	N/A	N/A (N/A)	325.1102	N/A		N/A N/A	N/A	
	temazepam	+	N/A	N/A (N/A)	301.0738	N/A		N/A N/A	N/A	
	tetrazepam	+	N/A	N/A (N/A)	289.1102	N/A		N/A N/A	N/A	
	triazolam	+	N/A	N/A (N/A)	343.0512	N/A		N/A N/A	N/A	
	6-acetylmorphine	+	N/A	N/A (N/A)	328.1543	N/A		N/A N/A	N/A	
	codeine	+	N/A	N/A (N/A)	300.1594	N/A		N/A N/A	N/A	
	dihydrocodeine	+	N/A	N/A (N/A)	302.1751	N/A		N/A N/A	N/A	
	dihydromorphone	+	N/A	N/A (N/A)	288.1594	N/A		N/A N/A	N/A	
	EDDP	+	N/A	N/A (N/A)	278.1903	N/A		N/A N/A	N/A	
	hydrocodone	+	N/A	N/A (N/A)	300.1594	N/A		N/A N/A	N/A	
	hydromorphone	+	N/A	N/A (N/A)	286.1438	N/A		N/A N/A	N/A	
	norcodeine	+	N/A	N/A (N/A)	286.1438	N/A		N/A N/A	N/A	
	normorphine	+	N/A	N/A (N/A)	272.1281	N/A		N/A N/A	N/A	
	noroxycodone	+	N/A	N/A (N/A)	302.1387	N/A		N/A N/A	N/A	
	oxycodone	+	N/A	N/A (N/A)	316.1543	N/A		N/A N/A	N/A	
	oxymorphone	+	N/A	N/A (N/A)	302.1387	N/A		N/A N/A	N/A	
	ecgonine methyl ester	+	N/A	N/A (N/A)	200.1281	N/A		N/A N/A	N/A	
	benzoylecgonine	+	1.09E+05	1.96 (0)	290.1387	290.1387	0.02	70.00	1 of 2	Let pursuing Ton-
	cocaethylene	+	N/A	N/A (N/A)	318.1700	N/A		N/A N/A	N/A	
	cocaine	+	N/A	N/A (N/A)	304.1543	N/A		N/A N/A	N/A	
	brompheniramine	+	N/A	N/A (N/A)	319.0804	N/A		N/A N/A	N/A	
	chlorpheniramine	+	N/A	N/A (N/A)	275.1310	N/A		N/A N/A	N/A	

b7E -2

b6 -1  
 b7C -1

## Exclusionary Screening by UPLC/FTMS

Batch: 20170928

Method: ExclusionSOP\_TargetingScreening

Inst. Method:

Acquired: 9/28/2017 23:50

Sample Type: Unknown

Vial Position: 1:D.8

Lab Name: FBI Laboratory

Assay: Exclusionary Screening TOX 215

Sample: 2017-00469, 3, blood

Comment:

File: 20170928\_36

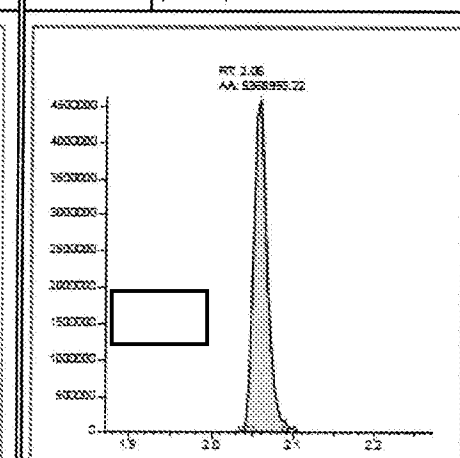
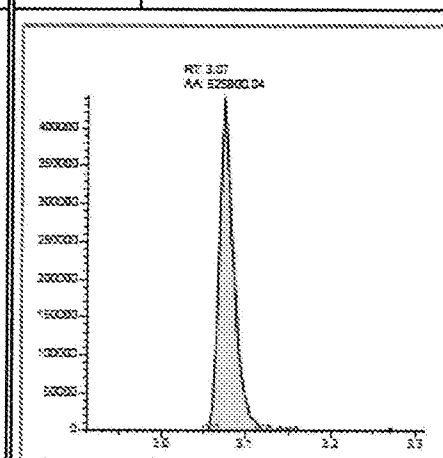
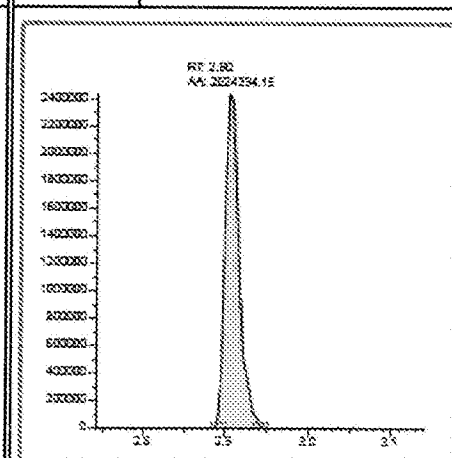
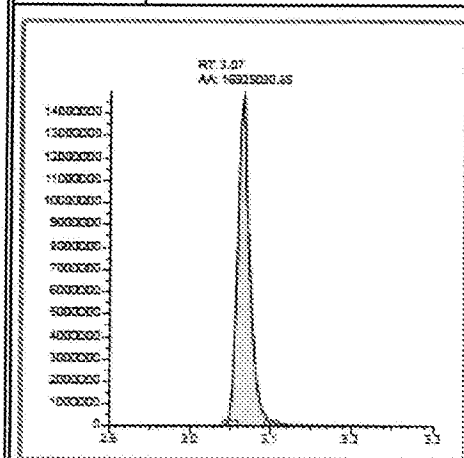
Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	dextromethorphan	+	N/A	N/A (N/A)	272.2009	N/A	N/A	N/A	N/A	
	dextrorphan	+	N/A	N/A (N/A)	258.1852	N/A	N/A	N/A	N/A	
	diphenhydramine	+	N/A	N/A (N/A)	256.1696	N/A	N/A	N/A	N/A	
	doxylamine	+	N/A	N/A (N/A)	271.1805	N/A	N/A	N/A	N/A	
	hydroxyzine	+	N/A	N/A (N/A)	375.1834	N/A	N/A	N/A	N/A	
	norchlorcyclizine	+	N/A	N/A (N/A)	287.1310	N/A	N/A	N/A	N/A	
	pheniramine	+	N/A	N/A (N/A)	241.1699	N/A	N/A	N/A	N/A	
	tetrahydrozoline	+	N/A	N/A (N/A)	201.1386	N/A	N/A	N/A	N/A	
	zaleplon	+	N/A	N/A (N/A)	306.1349	N/A	N/A	N/A	N/A	
	zolpidem	+	N/A	N/A (N/A)	308.1757	N/A	N/A	N/A	N/A	
	zopiclone	+	N/A	N/A (N/A)	389.1123	N/A	N/A	N/A	N/A	
	duloxetine	+	N/A	N/A (N/A)	298.1260	N/A	N/A	N/A	N/A	

b7E -2

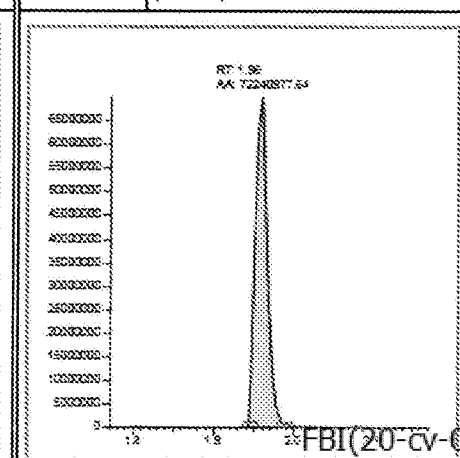
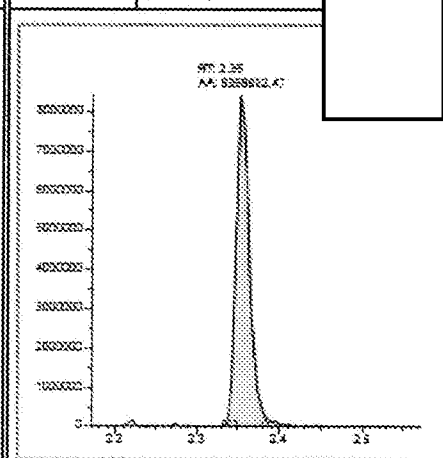
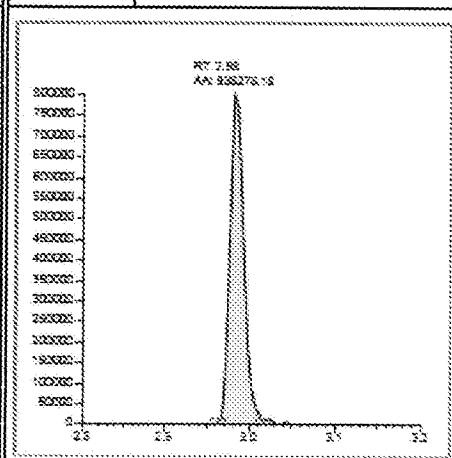
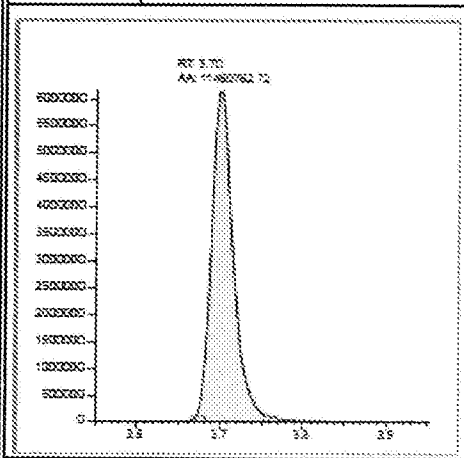
b6 -1  
b7C -1

2017-00469 1027-2017

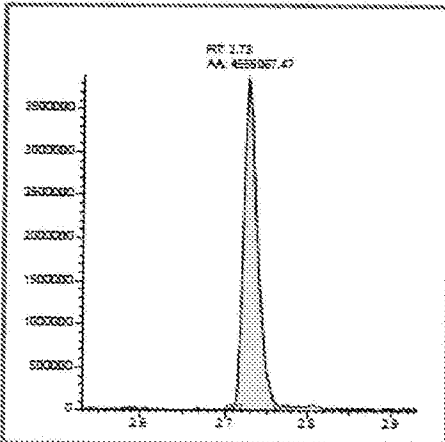
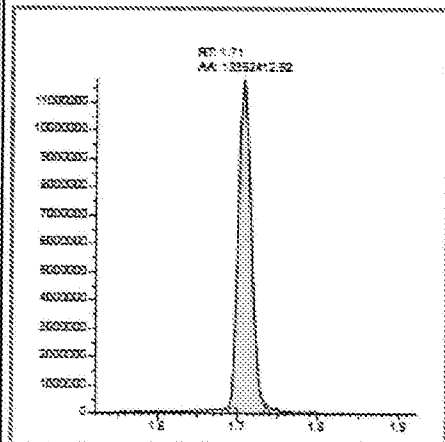
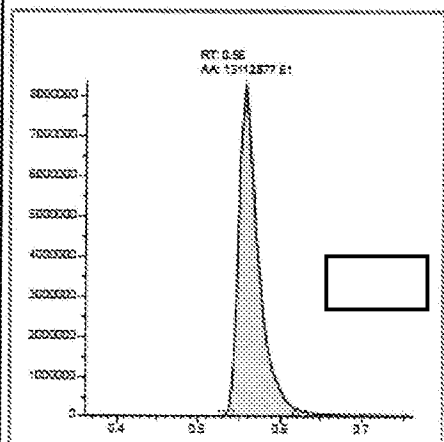
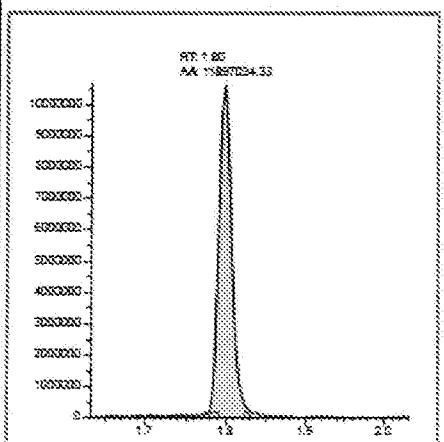
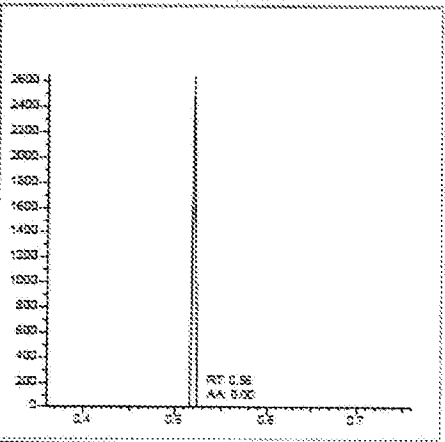
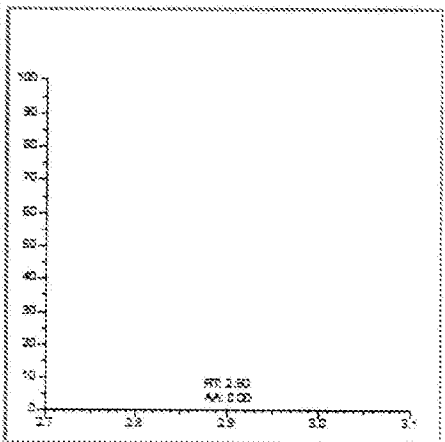
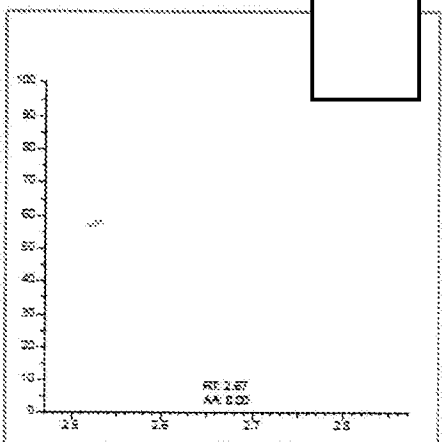
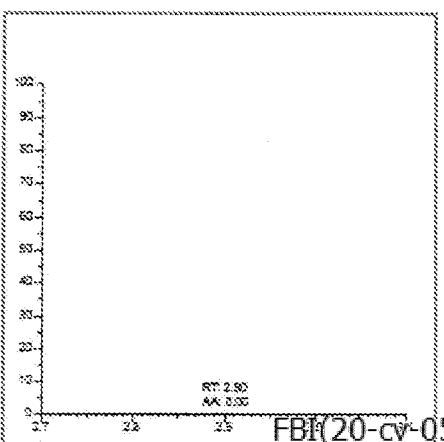
Compound:	<b>d5-alprazolam</b>	Compound:	<b>d5-hydroxalprazolam</b>	Compound:	<b>d4-clonazepam</b>	Compound:	<b>d4-7-aminoclonazepam</b>
RT(exp)	3.1	RT(exp)	2.94	RT(exp)	3.11	RT(exp)	2.07
RT(delta)	3.07 (-0.03)	RT(delta)	2.9 (-0.04)	RT(delta)	3.07 (-0.04)	RT(delta)	2.06 (-0.01)
Area:	16925000	Area:	2824400	Area:	525800	Area:	5369000
m/z:	314.1220	m/z:	330.1170	m/z:	320.0739	m/z:	290.0997
delta	(mmu): 0.45	delta	(mmu): 0.58	delta	(mmu): 0.46	delta	(mmu): 0.43



Compound:	<b>d5-diazepam</b>	Compound:	<b>d5-oxazepam</b>	Compound:	<b>d6-zolpidem</b>	Compound:	<b>d3-benzoylecgonine</b>
RT(exp)	3.75	RT(exp)	3	RT(exp)	2.37	RT(exp)	1.97
RT(delta)	3.7 (-0.05)	RT(delta)	2.98 (-0.02)	RT(delta)	2.35 (-0.02)	RT(delta)	1.96 (-0.01)
Area:	11461000	Area:	938280	Area:	9359900	Area:	72241000
m/z:	290.1106	m/z:	292.0901	m/z:	314.2136	m/z:	293.1577
delta	(mmu): 0.3	delta	(mmu): 0.52	delta	(mmu): 0.16	delta	(mmu): 0.17



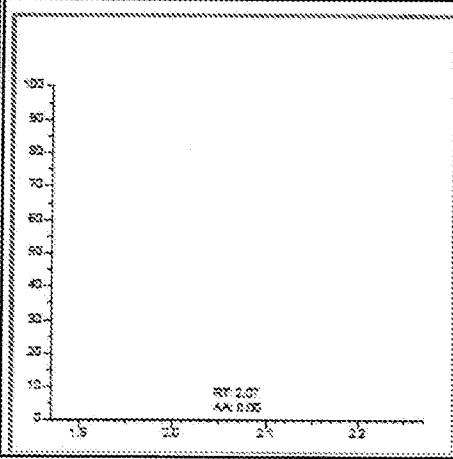
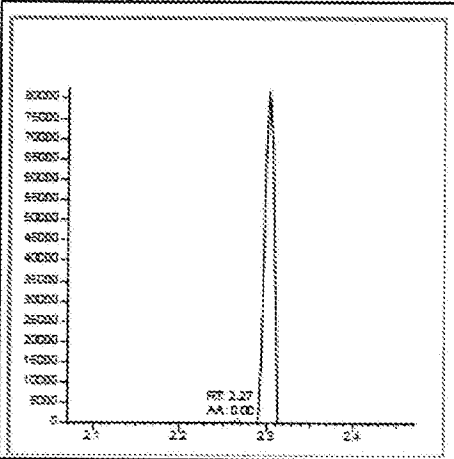
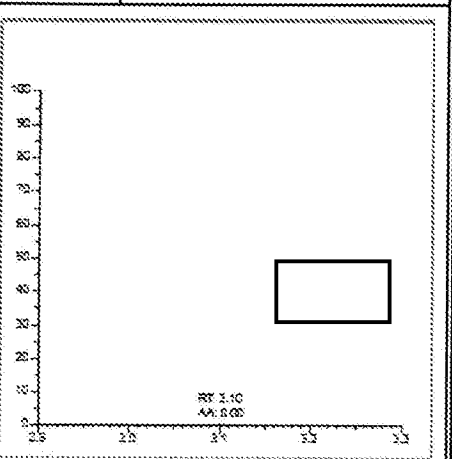
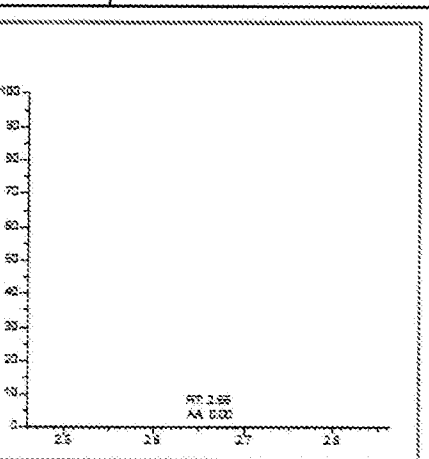
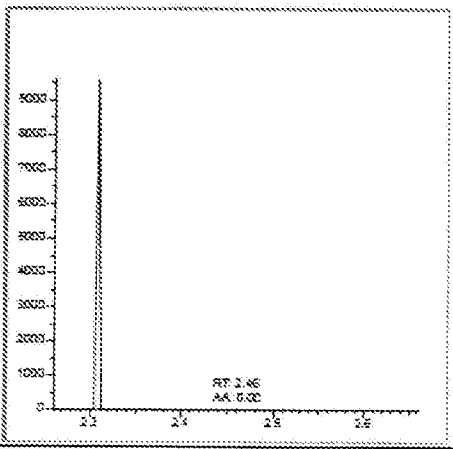
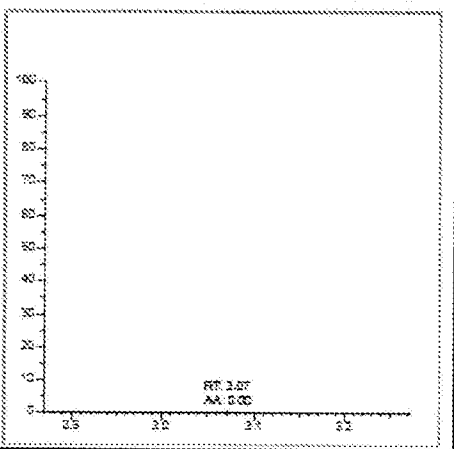
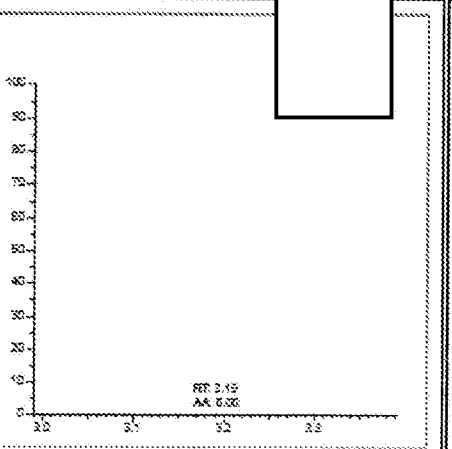
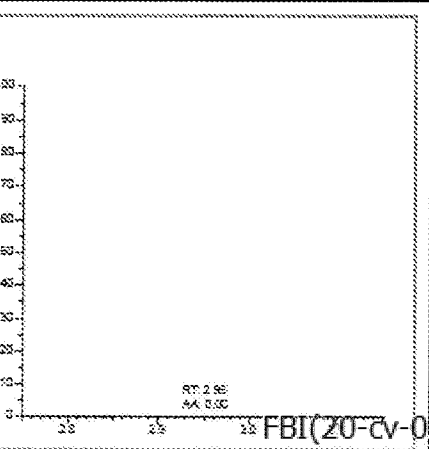
b6 -1  
 b7C -1

Compound:	<b>d3-diphenhydramine</b>	Compound:	<b>d6-oxycodone</b>	Compound:	<b>d3-morphine</b>	Compound:	<b>d3-hydrocodone</b>
RT(exp)	2.73	RT(exp)	1.72	RT(exp)	0.56	RT(exp)	1.83
RT(delta)	2.73 (0)	RT(delta)	1.71 (-0.01)	RT(delta)	0.56 (0)	RT(delta)	1.8 (-0.03)
Area:	4555100	Area:	13352000	Area:	13113000	Area:	11897000
m/z:	259.1889	m/z:	322.1924	m/z:	289.1630	m/z:	303.1786
delta	(mmu): 0.45	delta	(mmu): 0.35	delta	(mmu): 0.36	delta	(mmu): 0.34
							
Compound:	<b>morphine</b>	Compound:	<b>hydroxylalprazolam</b>	Compound:	<b>hydroxymidazolam</b>	Compound:	<b>hydroxytriazolam</b>
RT(exp)	0.56	RT(exp)	2.9	RT(exp)	2.67	RT(exp)	2.9
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

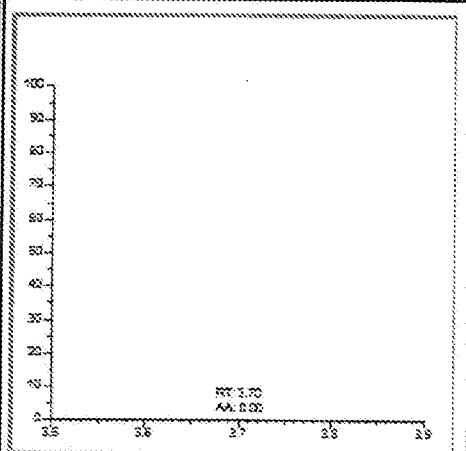
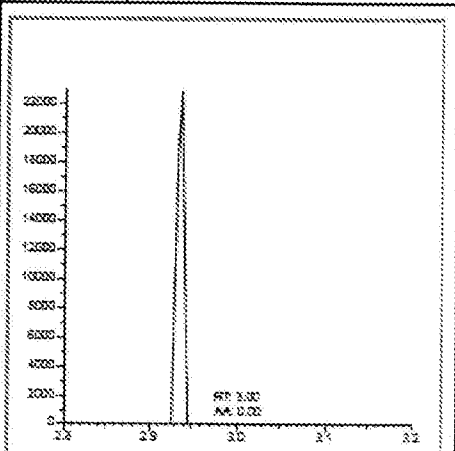
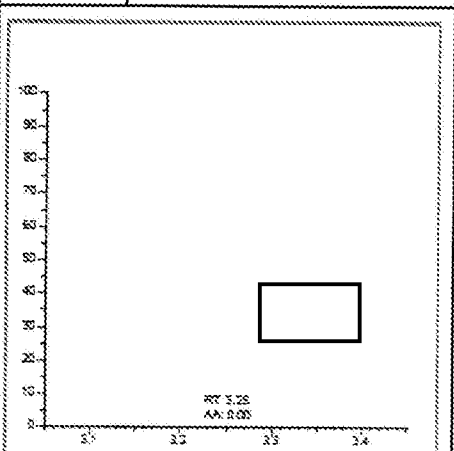
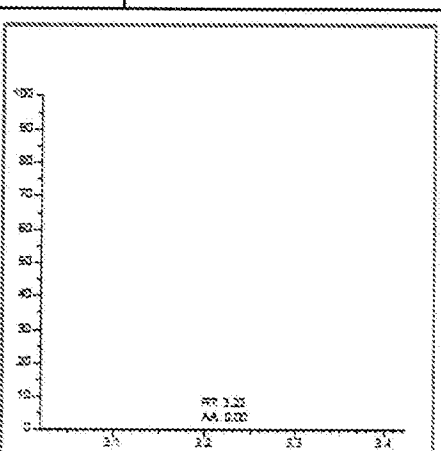
b6 -1  
b7C -1

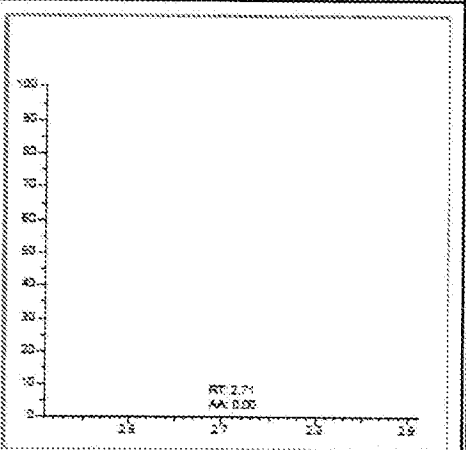
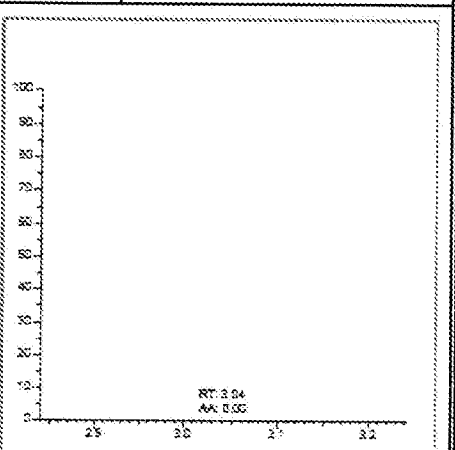
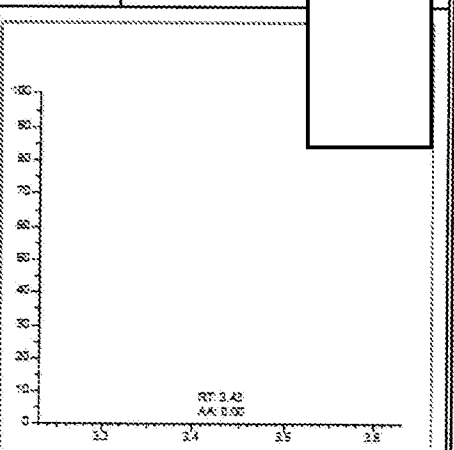
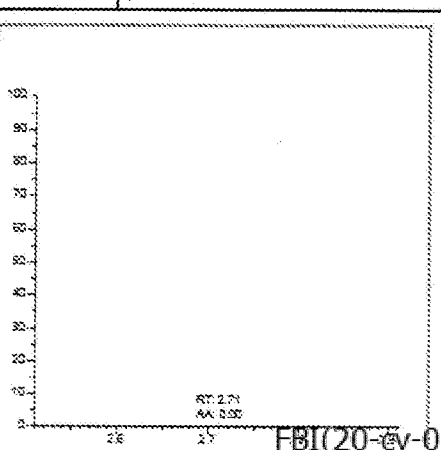
2017-00469 1027-2017



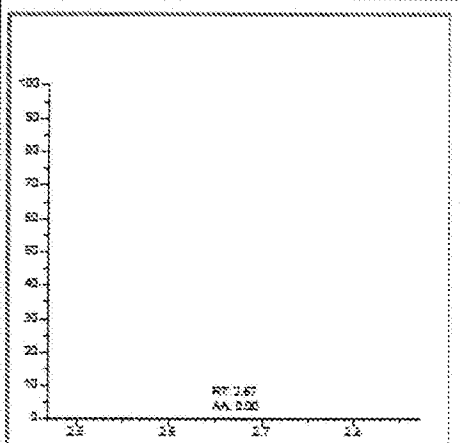
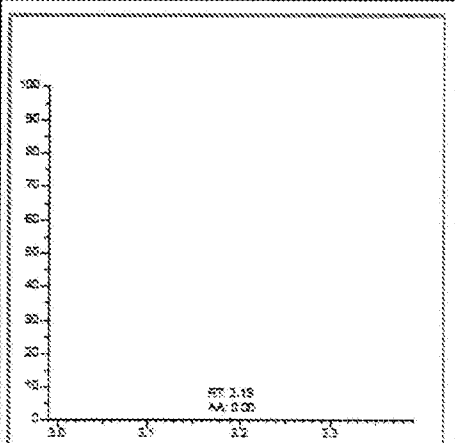
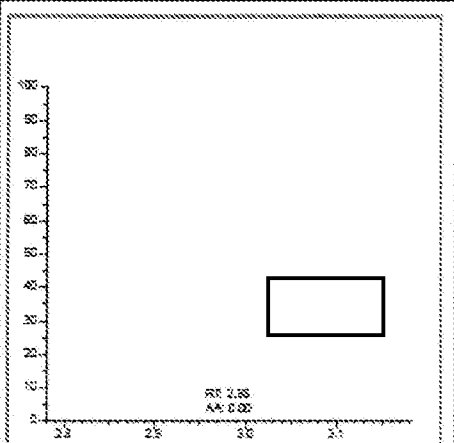
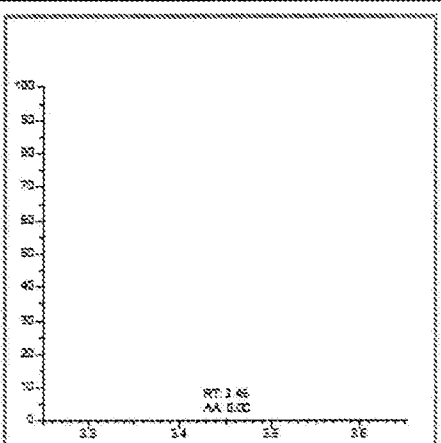
Compound:	<b>7-aminoclonazepam</b>	Compound:	<b>7-aminoflunitrazepam</b>	Compound:	<b>alprazolam</b>	Compound:	<b>bromazepam</b>
RT(exp)	2.07	RT(exp)	2.27	RT(exp)	3.1	RT(exp)	2.66
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							
Compound:	<b>chlordiazepoxide</b>	Compound:	<b>clonazepam</b>	Compound:	<b>desalkylflurazepam</b>	Compound:	<b>desmethylflunitrazepam</b>
RT(exp)	2.46	RT(exp)	3.07	RT(exp)	3.19	RT(exp)	2.95
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

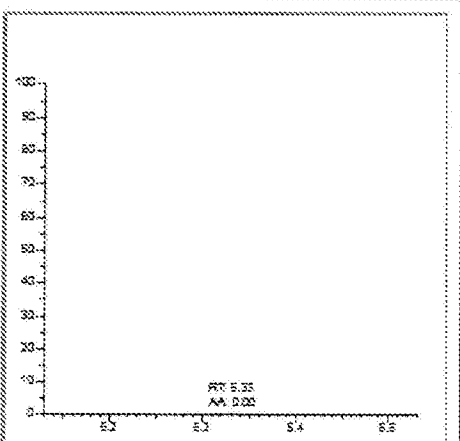
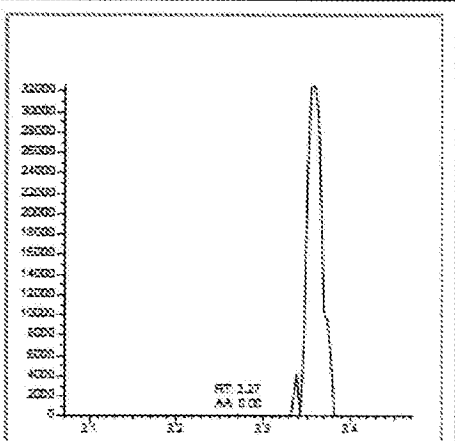
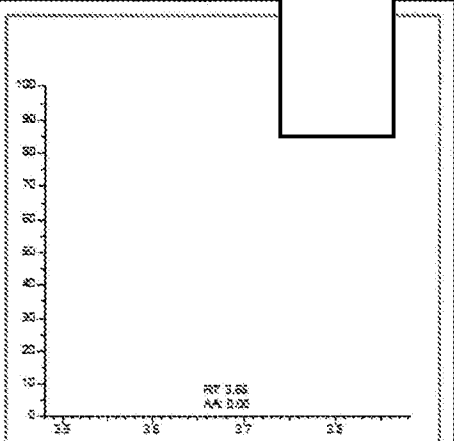
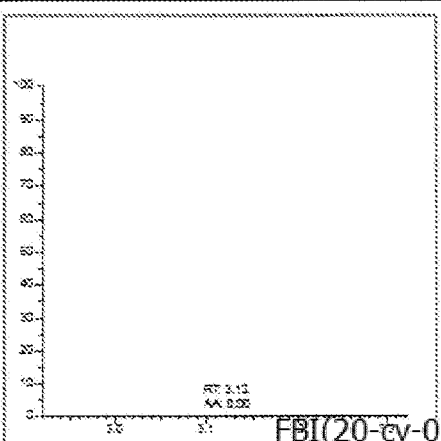
b6 -1  
 b7C -1

Compound:	diazepam	Compound:	estazolam	Compound:	etizolam	Compound:	flunitrazepam
RT(exp)	3.7	RT(exp)	3	RT(exp)	3.25	RT(exp)	3.22
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

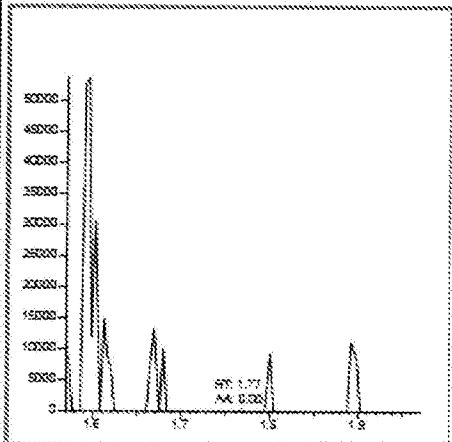
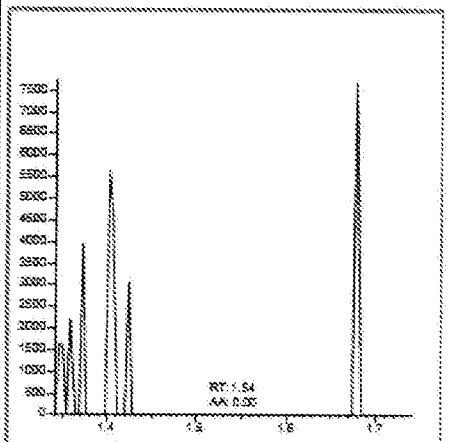
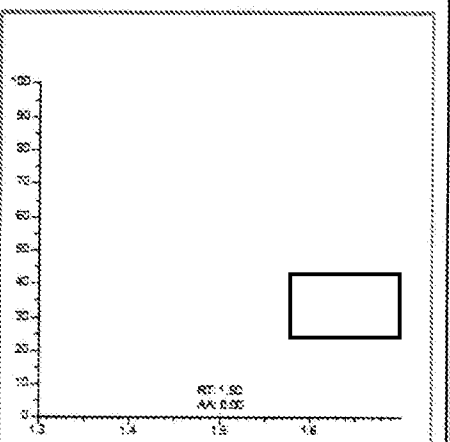
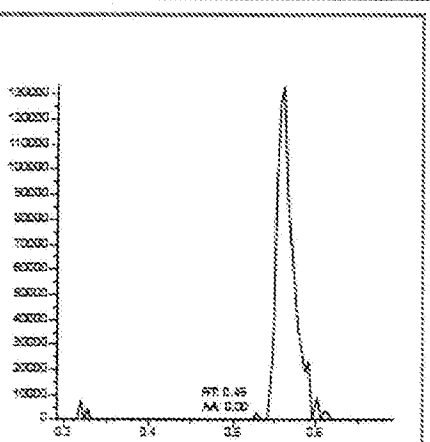
Compound:	flurazepam	Compound:	lorazepam	Compound:	lormetazepam	Compound:	medazepam
RT(exp)	2.71	RT(exp)	3.04	RT(exp)	3.43	RT(exp)	2.71
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

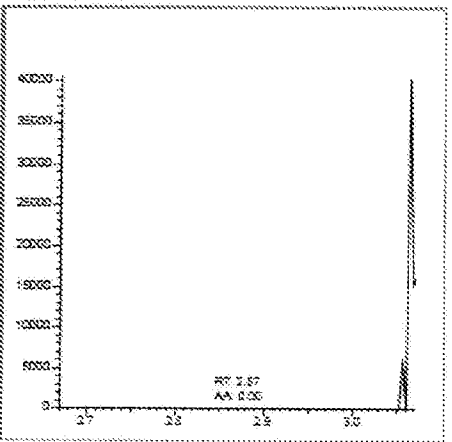
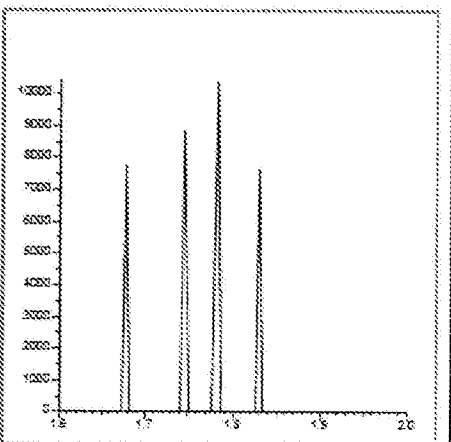
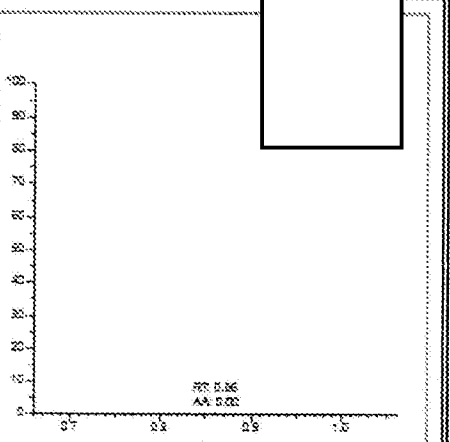
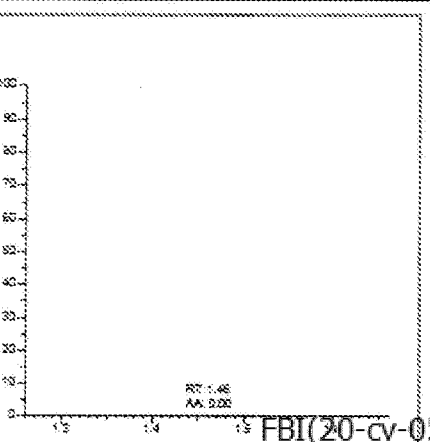
b6 -1  
 b7C -1

Compound:	<b>midazolam</b>	Compound:	<b>nordiazepam</b>	Compound:	<b>oxazepam</b>	Compound:	<b>phenazepam</b>
RT(exp)	2.67	RT(exp)	3.19	RT(exp)	2.98	RT(exp)	3.45
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>prazepam</b>	Compound:	<b>temazepam</b>	Compound:	<b>tetrazepam</b>	Compound:	<b>triazolam</b>
RT(exp)	5.33	RT(exp)	3.27	RT(exp)	3.68	RT(exp)	3.12
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

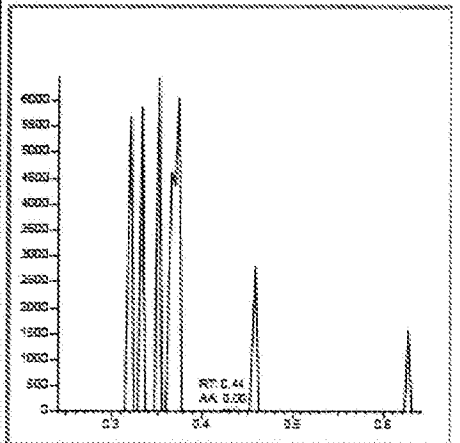
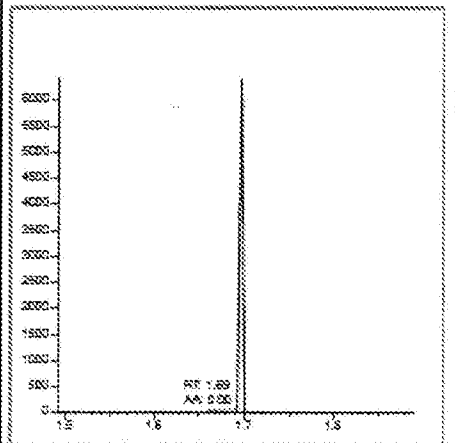
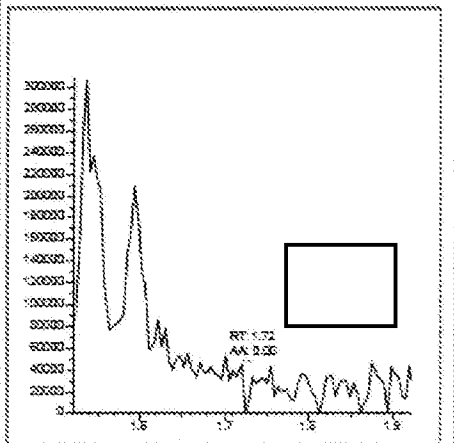
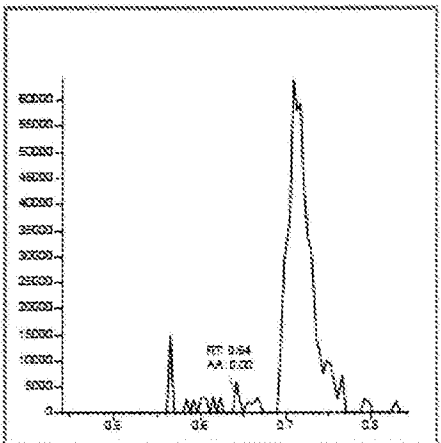
b6 -1  
b7C -1

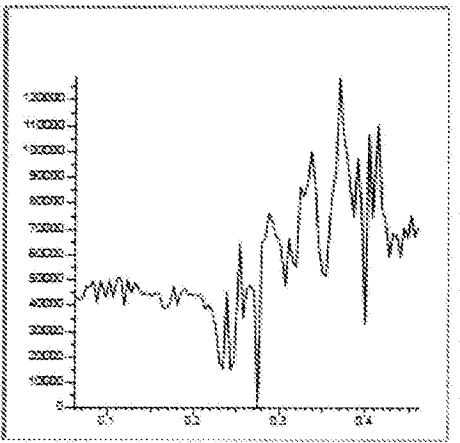
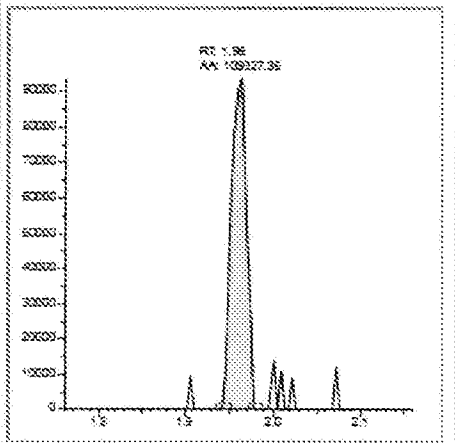
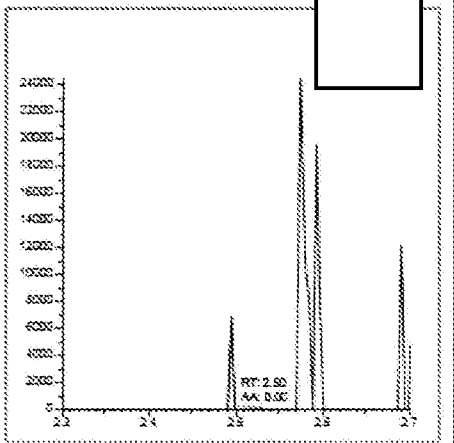
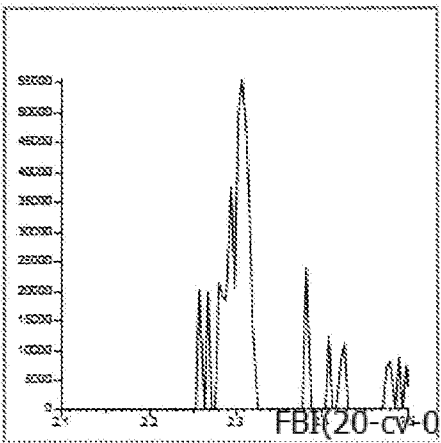
Compound:	<b>6-acetylmorphine</b>	Compound:	<b>codeine</b>	Compound:	<b>dihydrocodeine</b>	Compound:	<b>dihydromorphine</b>
RT(exp)	1.77	RT(exp)	1.54	RT(exp)	1.5	RT(exp)	0.49
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>EDDP</b>	Compound:	<b>hydrocodone</b>	Compound:	<b>hydromorphone</b>	Compound:	<b>norcodeine</b>
RT(exp)	2.87	RT(exp)	1.8	RT(exp)	0.86	RT(exp)	1.46
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

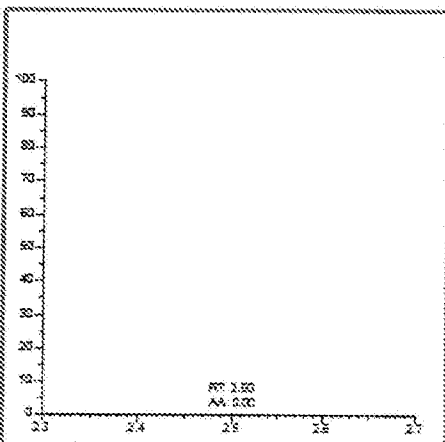
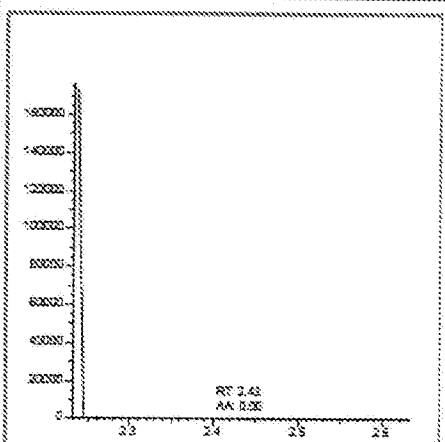
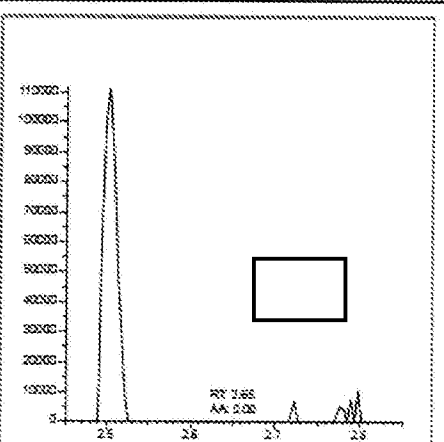
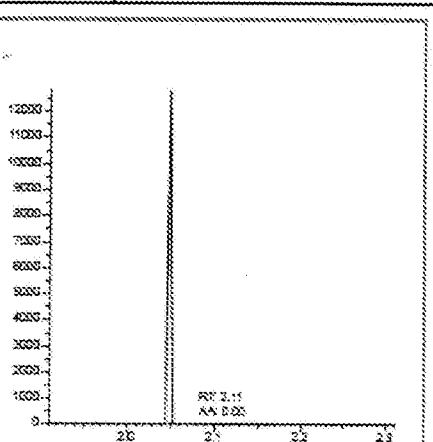
b6 -1  
 b7C -1

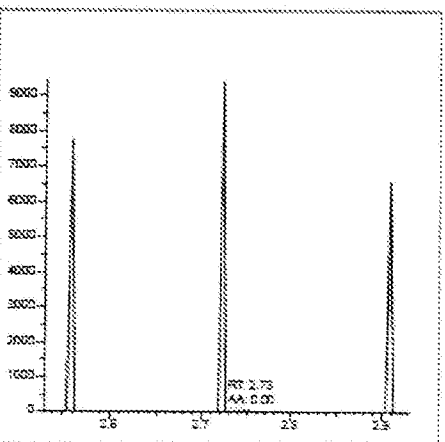
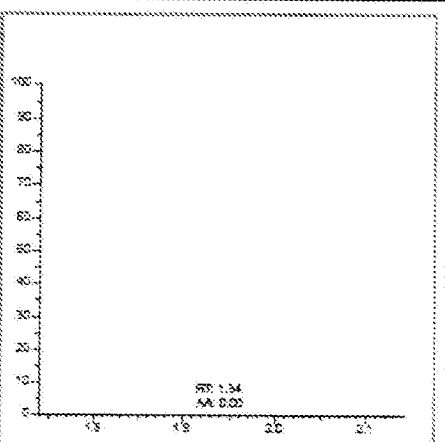
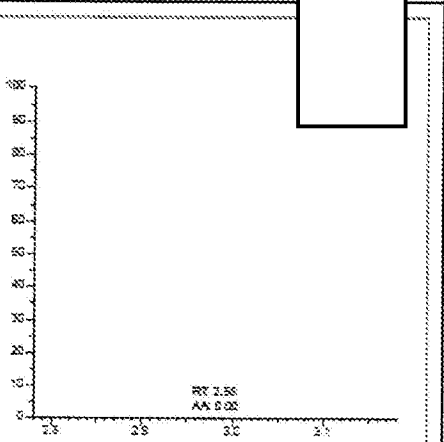
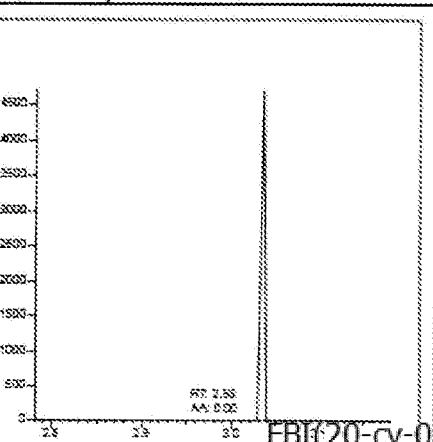
2017-00469 1027-2017

Compound:	<b>normorphine</b>	Compound:	<b>noroxycodone</b>	Compound:	<b>oxycodone</b>	Compound:	<b>oxymorphone</b>
RT(exp)	0.44	RT(exp)	1.69	RT(exp)	1.72	RT(exp)	0.64
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>ecgonine methyl ester</b>	Compound:	<b>benzoylecgonine</b>	Compound:	<b>cocaethylene</b>	Compound:	<b>cocaine</b>
RT(exp)	0.26	RT(exp)	1.96	RT(exp)	2.5	RT(exp)	2.3
RT(delta)	N/A (N/A)	RT(delta)	1.96 (0)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	109330	Area:	N/A	Area:	N/A
m/z:		m/z:	290.1387	m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): 0.02	delta	(mmu): N/A	delta	(mmu): N/A
							

b6 -1  
 b7C -1

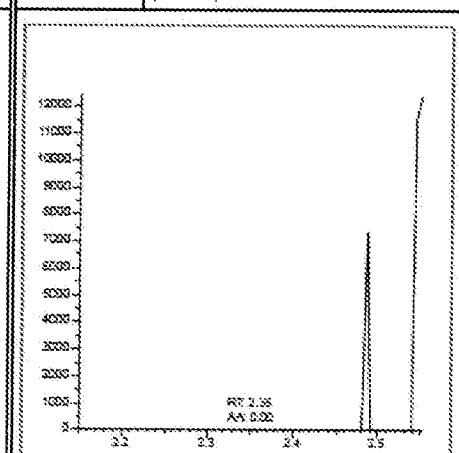
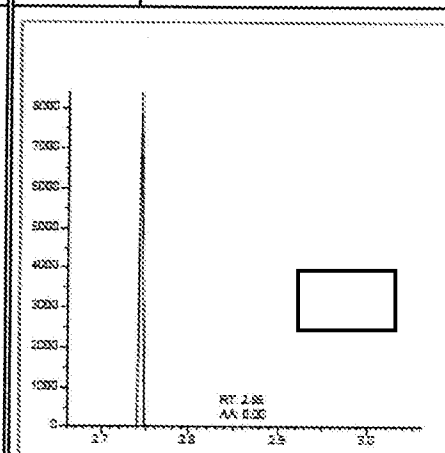
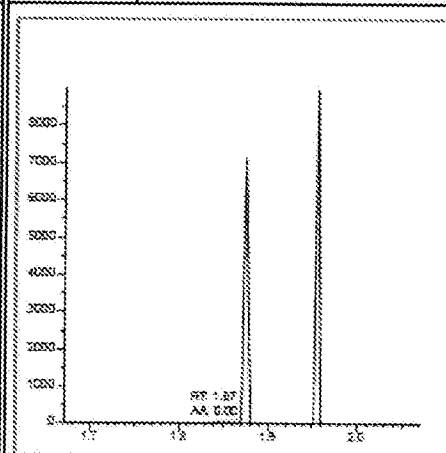
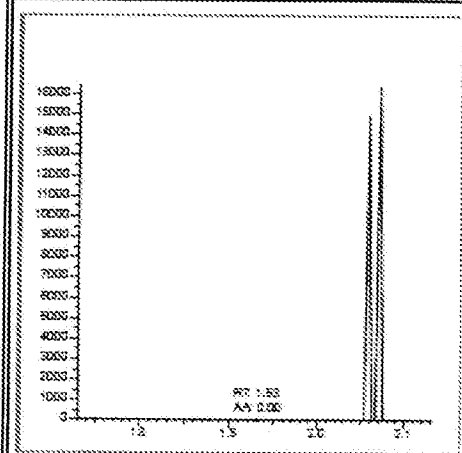
Compound:	<b>brompheniramine</b>	Compound:	<b>chlorpheniramine</b>	Compound:	<b>dextromethorphan</b>	Compound:	<b>dextropropion</b>
RT(exp)	2.5	RT(exp)	2.43	RT(exp)	2.65	RT(exp)	2.11
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>diphenhydramine</b>	Compound:	<b>doxylamine</b>	Compound:	<b>hydroxyzine</b>	Compound:	<b>norchlorcyclizine</b>
RT(exp)	2.73	RT(exp)	1.94	RT(exp)	2.98	RT(exp)	2.98
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

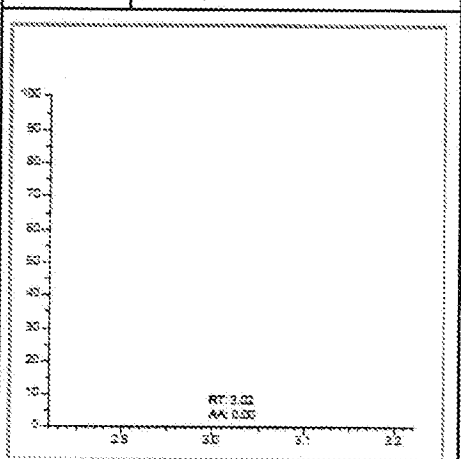
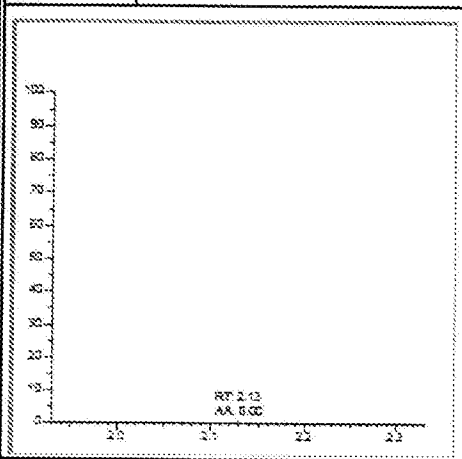
b6 -1  
b7C -1

2017-00469, 3, blood

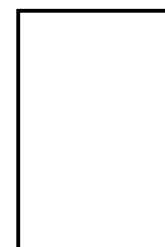
Compound:	pheniramine	Compound:	tetrahydrozoline	Compound:	zaleplon	Compound:	zolpidem
RT(exp)	1.93	RT(exp)	1.87	RT(exp)	2.86	RT(exp)	2.35
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A



Compound:	zopiclone	Compound:	duloxetine
RT(exp)	2.13	RT(exp)	3.02
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A
m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A



b6 -1  
b7C -1



## Exclusionary Screening by UPLC/FTMS

Batch: 20170928  
 Method: ExclusionSOP\_TargetingScreening  
 Inst. Method:  
 Acquired: 9/28/2017 23:39  
 Sample Type: Unknown  
 Vial Position 1:D.7

Lab Name: FBI Laboratory  
 Assay: Exclusionary Screening TOX 215

Sample sb

Comment \_\_\_\_\_

File 20170928 35

Detected	Target Name	±/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	d5-alprazolam	+	N/A	N/A (N/A)	314.1215	N/A	N/A	N/A	N/A	
	d5-hydroxalprazolam	+	N/A	N/A (N/A)	330.1165	N/A	N/A	N/A	N/A	
	d4-clonazepam	+	N/A	N/A (N/A)	320.0735	N/A	N/A	N/A	N/A	
	d4-7-aminoclonazepam	+	N/A	N/A (N/A)	290.0993	N/A	N/A	N/A	N/A	
	d5-diazepam	+	N/A	N/A (N/A)	290.1103	N/A	N/A	N/A	N/A	
	d5-oxazepam	+	N/A	N/A (N/A)	292.0896	N/A	N/A	N/A	N/A	
	d6-zolpidem	+	N/A	N/A (N/A)	314.2134	N/A	N/A	N/A	N/A	
	d3-benzoyllecgonine	+	N/A	N/A (N/A)	293.1575	N/A	N/A	N/A	N/A	
	d3-diphenhydramine	+	N/A	N/A (N/A)	259.1884	N/A	N/A	N/A	N/A	
	d6-oxycodone	+	N/A	N/A (N/A)	322.1920	N/A	N/A	N/A	N/A	
	d3-morphine	+	N/A	N/A (N/A)	289.1626	N/A	N/A	N/A	N/A	
	d3-hydrocodone	+	N/A	N/A (N/A)	303.1783	N/A	N/A	N/A	N/A	
	morphine	+	N/A	N/A (N/A)	286.1438	N/A	N/A	N/A	N/A	
	hydroxalprazolam	+	N/A	N/A (N/A)	325.0851	N/A	N/A	N/A	N/A	
	hydroxymidazolam	+	N/A	N/A (N/A)	342.0804	N/A	N/A	N/A	N/A	
	hydroxytriazolam	+	N/A	N/A (N/A)	359.0461	N/A	N/A	N/A	N/A	
	7-aminoclonazepam	+	N/A	N/A (N/A)	286.0742	N/A	N/A	N/A	N/A	
	7-aminoflunitrazepam	+	N/A	N/A (N/A)	284.1194	N/A	N/A	N/A	N/A	
	alprazolam	+	N/A	N/A (N/A)	309.0902	N/A	N/A	N/A	N/A	
	bromazepam	+	N/A	N/A (N/A)	316.0080	N/A	N/A	N/A	N/A	
	chlordiazepoxide	+	N/A	N/A (N/A)	300.0898	N/A	N/A	N/A	N/A	
	clonazepam	+	N/A	N/A (N/A)	316.0484	N/A	N/A	N/A	N/A	
	desalkylflurazepam	+	N/A	N/A (N/A)	289.0539	N/A	N/A	N/A	N/A	
	desmethyflunitrazepam	+	N/A	N/A (N/A)	300.0779	N/A	N/A	N/A	N/A	
	diazepam	+	N/A	N/A (N/A)	285.0789	N/A	N/A	N/A	N/A	
	estazolam	+	N/A	N/A (N/A)	295.0745	N/A	N/A	N/A	N/A	
	etizolam	+	N/A	N/A (N/A)	343.0779	N/A	N/A	N/A	N/A	
	flunitrazepam	+	N/A	N/A (N/A)	314.0936	N/A	N/A	N/A	N/A	
	flurazepam	+	N/A	N/A (N/A)	388.1586	N/A	N/A	N/A	N/A	

b7E -2

b6 -1  
b7C -1



## Exclusionary Screening by UPLC/FTMS

Batch: 20170928  
 Method: ExclusionSOP\_TargetingScreening  
 Inst. Method:  
 Acquired: 9/28/2017 23:39  
 Sample Type: Unknown  
 Vial Position 1:D,7

Lab Name: FBI Laboratory  
 Assay: Exclusionary Screening TOX 215

Sample \_\_\_\_\_ sb  
 Comment \_\_\_\_\_  
 File 20170928\_35

Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	lorazepam	+	N/A	N/A (N/A)	321.0192	N/A	N/A	N/A	N/A	
	lormetazepam	+	N/A	N/A (N/A)	335.0349	N/A	N/A	N/A	N/A	
	medazepam	+	N/A	N/A (N/A)	271.0997	N/A	N/A	N/A	N/A	
	midazolam	+	N/A	N/A (N/A)	326.0855	N/A	N/A	N/A	N/A	
	nordiazepam	+	N/A	N/A (N/A)	271.0633	N/A	N/A	N/A	N/A	
	oxazepam	+	N/A	N/A (N/A)	287.0582	N/A	N/A	N/A	N/A	
	phenazepam	+	N/A	N/A (N/A)	348.9738	N/A	N/A	N/A	N/A	
	prazepam	+	N/A	N/A (N/A)	325.1102	N/A	N/A	N/A	N/A	
	temazepam	+	N/A	N/A (N/A)	301.0738	N/A	N/A	N/A	N/A	
	tetrazepam	+	N/A	N/A (N/A)	289.1102	N/A	N/A	N/A	N/A	
	triazolam	+	N/A	N/A (N/A)	343.0512	N/A	N/A	N/A	N/A	
	6-acetylmorphine	+	N/A	N/A (N/A)	328.1543	N/A	N/A	N/A	N/A	
	codeine	+	N/A	N/A (N/A)	300.1594	N/A	N/A	N/A	N/A	
	dihydrocodeine	+	N/A	N/A (N/A)	302.1751	N/A	N/A	N/A	N/A	
	dihydromorphone	+	N/A	N/A (N/A)	288.1594	N/A	N/A	N/A	N/A	
	EDDP	+	N/A	N/A (N/A)	278.1903	N/A	N/A	N/A	N/A	
	hydrocodone	+	N/A	N/A (N/A)	300.1594	N/A	N/A	N/A	N/A	
	hydromorphone	+	N/A	N/A (N/A)	286.1438	N/A	N/A	N/A	N/A	
	norcodeine	+	N/A	N/A (N/A)	286.1438	N/A	N/A	N/A	N/A	
	normorphine	+	N/A	N/A (N/A)	272.1281	N/A	N/A	N/A	N/A	
	noroxycodone	+	N/A	N/A (N/A)	302.1387	N/A	N/A	N/A	N/A	
	oxycodone	+	N/A	N/A (N/A)	316.1543	N/A	N/A	N/A	N/A	
	oxymorphine	+	N/A	N/A (N/A)	302.1387	N/A	N/A	N/A	N/A	
	ecgonine methyl ester	+	N/A	N/A (N/A)	200.1281	N/A	N/A	N/A	N/A	
	benzoylecgonine	+	N/A	N/A (N/A)	290.1387	N/A	N/A	N/A	N/A	
	cocaethylene	+	N/A	N/A (N/A)	318.1700	N/A	N/A	N/A	N/A	
	cocaine	+	N/A	N/A (N/A)	304.1543	N/A	N/A	N/A	N/A	
	brompheniramine	+	N/A	N/A (N/A)	319.0804	N/A	N/A	N/A	N/A	
	chlorpheniramine	+	N/A	N/A (N/A)	275.1310	N/A	N/A	N/A	N/A	

b7E -2

b6 -1  
 b7C -1

2017-00469 1027-2017

## Exclusionary Screening by UPLC/FTMS

Batch: 20170928

Method: ExclusionSOP\_TargetingScreening

Inst. Method:

Acquired: 9/28/2017 23:39

Sample Type: Unknown

Vial Position: 1:D,7

Lab Name: FBI Laboratory

Assay: Exclusionary Screening TOX 215

Sample \_\_\_\_\_ **sb**

Comment \_\_\_\_\_

File \_\_\_\_\_ 20170928\_35

Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	dextromethorphan	+	N/A	N/A (N/A)	272.2009	N/A		N/A N/A	N/A	
	dextrorphan	+	N/A	N/A (N/A)	258.1852	N/A		N/A N/A	N/A	
	diphenhydramine	+	N/A	N/A (N/A)	256.1696	N/A		N/A N/A	N/A	
	doxylamine	+	N/A	N/A (N/A)	271.1805	N/A		N/A N/A	N/A	
	hydroxyzine	+	N/A	N/A (N/A)	375.1834	N/A		N/A N/A	N/A	
	norchlorcyclizine	+	N/A	N/A (N/A)	287.1310	N/A		N/A N/A	N/A	
	pheniramine	+	N/A	N/A (N/A)	241.1699	N/A		N/A N/A	N/A	
	tetrahydrozoline	+	N/A	N/A (N/A)	201.1386	N/A		N/A N/A	N/A	
	zaleplon	+	N/A	N/A (N/A)	306.1349	N/A		N/A N/A	N/A	
	zolpidem	+	N/A	N/A (N/A)	308.1757	N/A		N/A N/A	N/A	
	zopiclone	+	N/A	N/A (N/A)	389.1123	N/A		N/A N/A	N/A	
	duloxetine	+	N/A	N/A (N/A)	298.1260	N/A		N/A N/A	N/A	

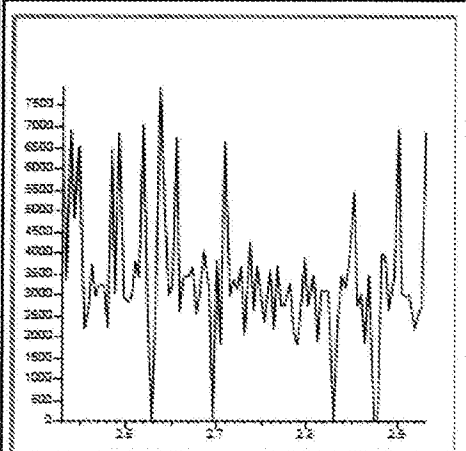
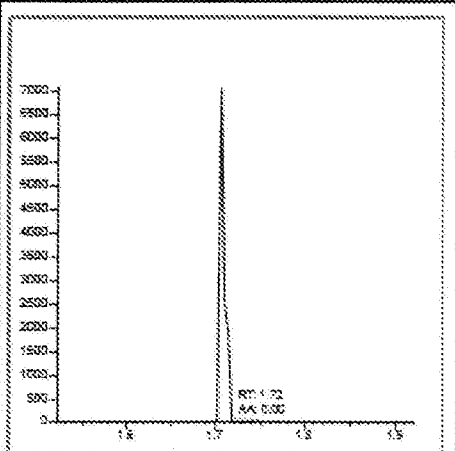
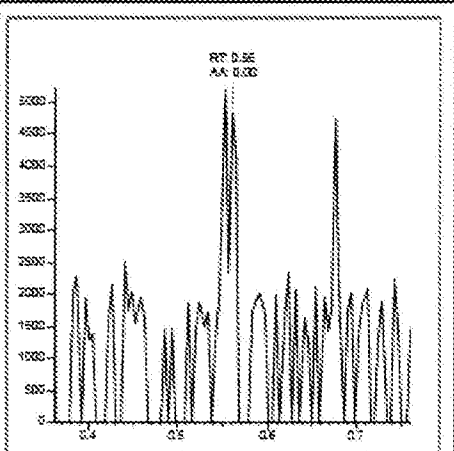
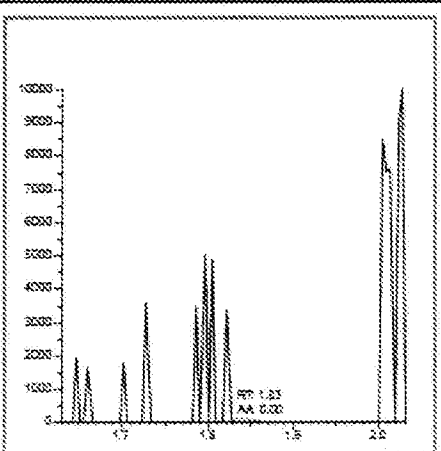
b7E -2

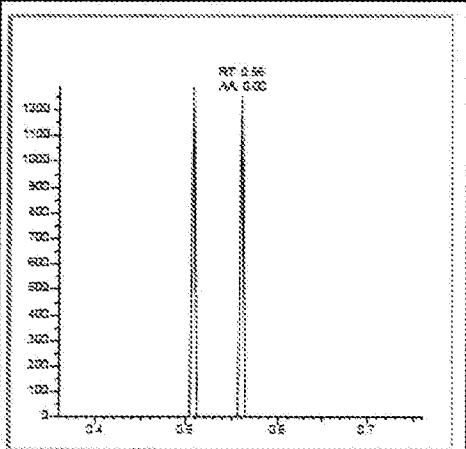
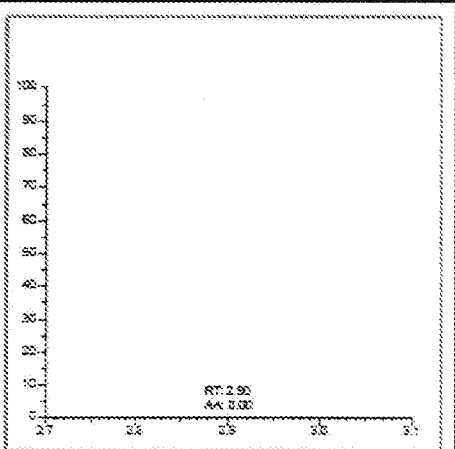
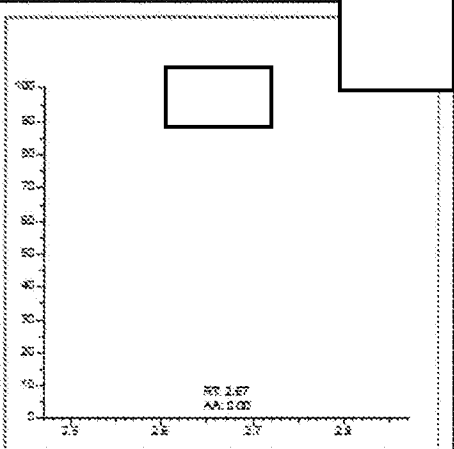
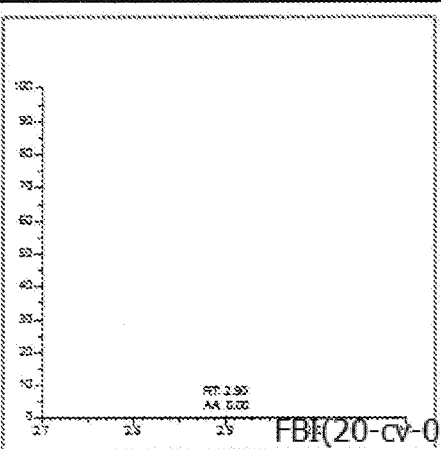
b6 -1  
b7C -1

Compound:	<b>d5-alprazolam</b>	Compound:	<b>d5-hydroxalprazolam</b>	Compound:	<b>d4-clonazepam</b>	Compound:	<b>d4-7-aminoclonazepam</b>
RT(exp)	3.1	RT(exp)	2.94	RT(exp)	3.11	RT(exp)	2.07
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A

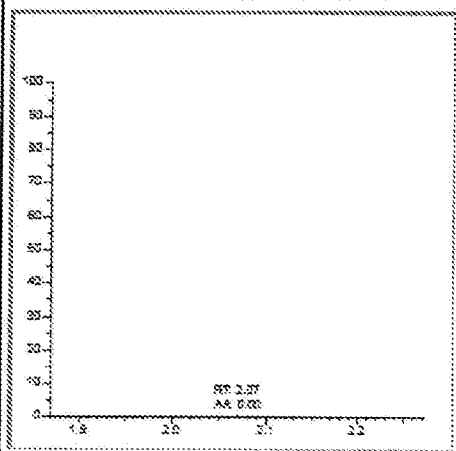
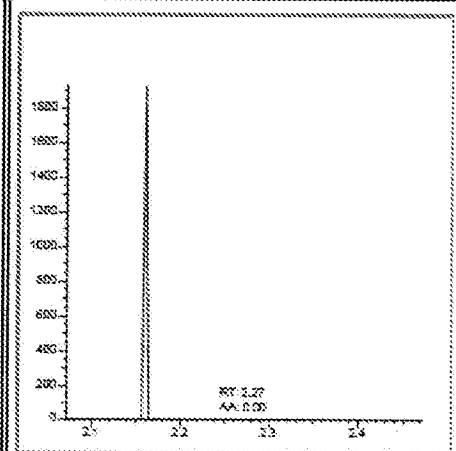
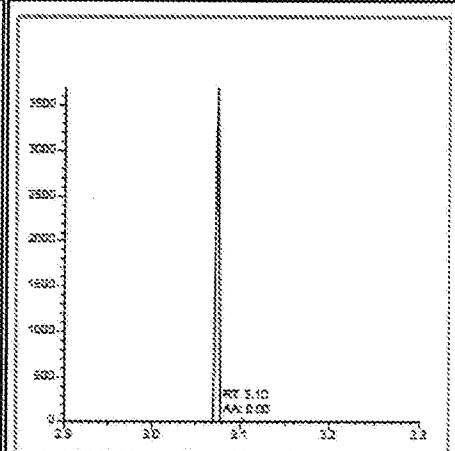
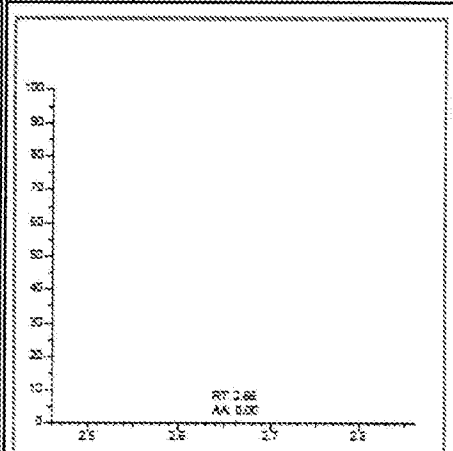
Compound:	<b>d5-diazepam</b>	Compound:	<b>d5-oxazepam</b>	Compound:	<b>d6-zolpidem</b>	Compound:	<b>d3-benzoylecgonine</b>
RT(exp)	3.75	RT(exp)	3	RT(exp)	2.37	RT(exp)	1.97
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A

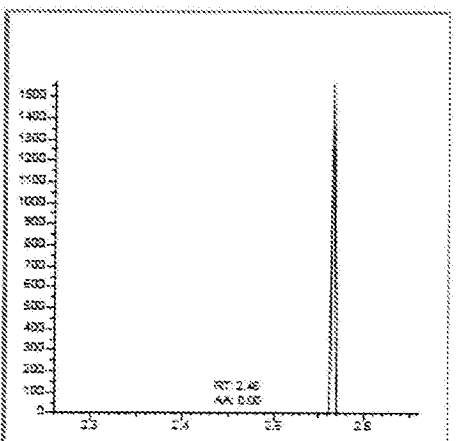
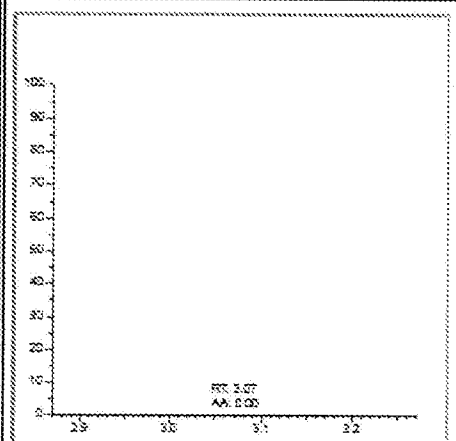
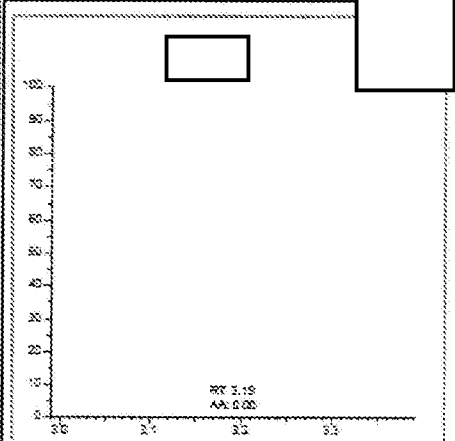
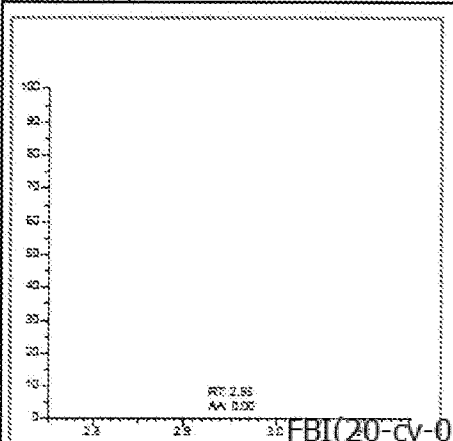
b6 -1  
 b7C -1

Compound:	<b>d3-diphenhydramine</b>	Compound:	<b>d6-oxycodone</b>	Compound:	<b>d3-morphine</b>	Compound:	<b>d3-hydrocodone</b>
RT(exp)	2.73	RT(exp)	1.72	RT(exp)	0.56	RT(exp)	1.83
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>morphine</b>	Compound:	<b>hydroxyalprazolam</b>	Compound:	<b>hydroxymidazolam</b>	Compound:	<b>hydroxytriazolam</b>
RT(exp)	0.56	RT(exp)	2.9	RT(exp)	2.67	RT(exp)	2.9
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

b6 -1  
 b7C -1

Compound:	<b>7-aminoclonazepam</b>	Compound:	<b>7-aminoflunitrazepam</b>	Compound:	<b>alprazolam</b>	Compound:	<b>bromazepam</b>
RT(exp)	2.07	RT(exp)	2.27	RT(exp)	3.1	RT(exp)	2.66
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>chlordiazepoxide</b>	Compound:	<b>clonazepam</b>	Compound:	<b>desalkylflurazepam</b>	Compound:	<b>desmethyflunitrazepam</b>
RT(exp)	2.46	RT(exp)	3.07	RT(exp)	3.19	RT(exp)	2.95
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

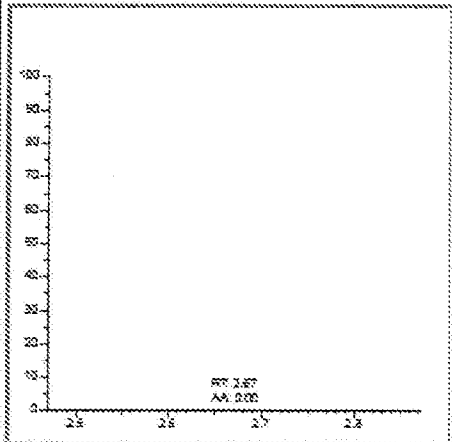
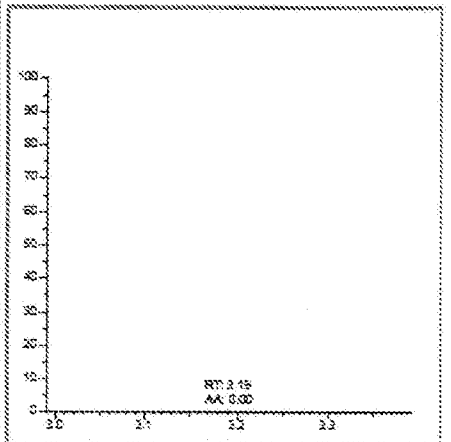
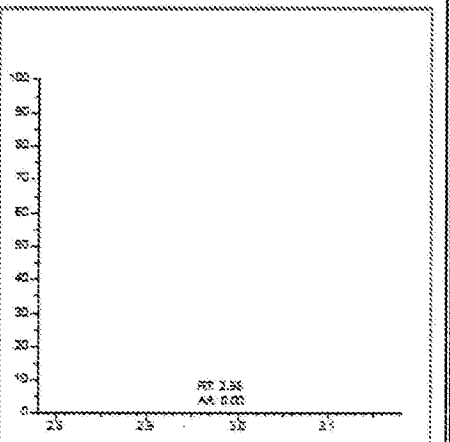
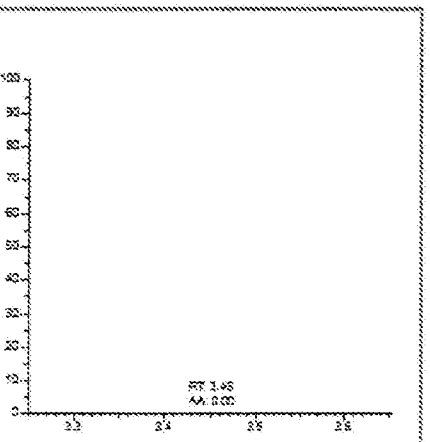
b6 -1  
 b7C -1

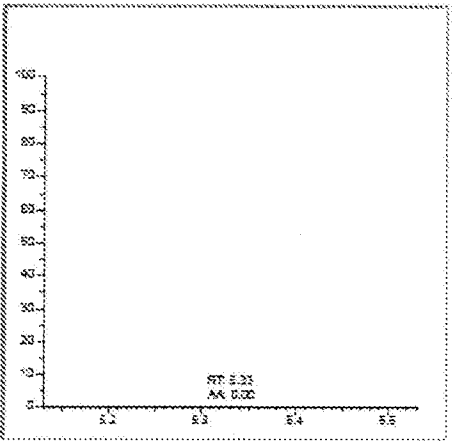
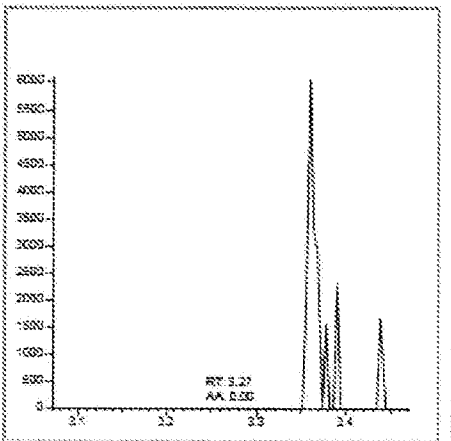
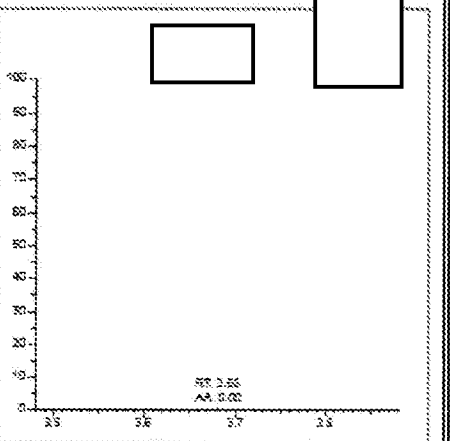
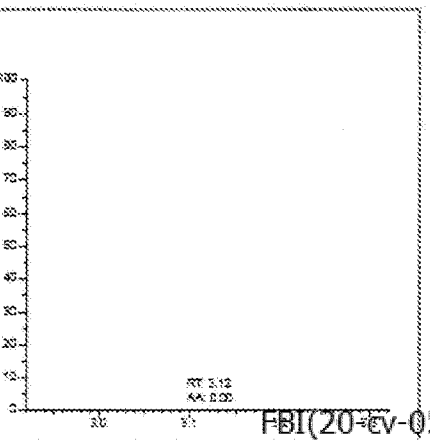
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Compound:	<b>diazepam</b>	Compound:	<b>estazolam</b>	Compound:	<b>etizolam</b>	Compound:	<b>flunitrazepam</b>
RT(exp)	3.7	RT(exp)	3	RT(exp)	3.25	RT(exp)	3.22
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A

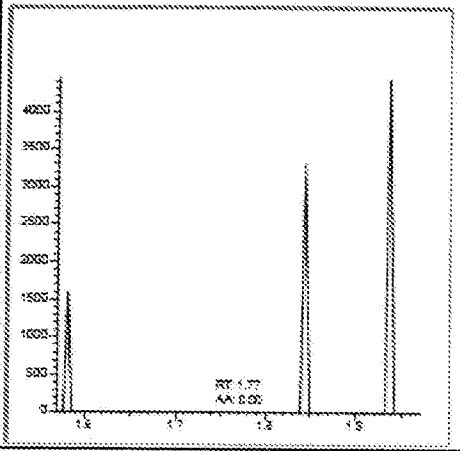
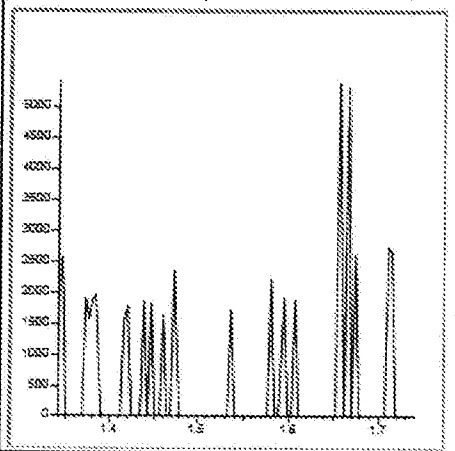
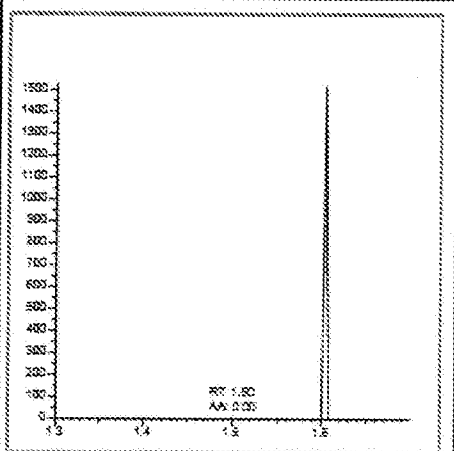
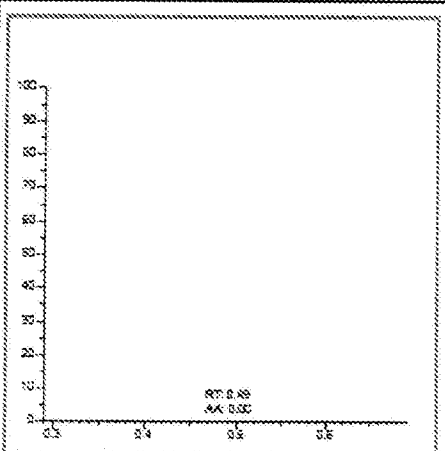
Compound:	<b>flurazepam</b>	Compound:	<b>lorazepam</b>	Compound:	<b>lormetazepam</b>	Compound:	<b>medazepam</b>
RT(exp)	2.71	RT(exp)	3.04	RT(exp)	3.43	RT(exp)	2.71
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A

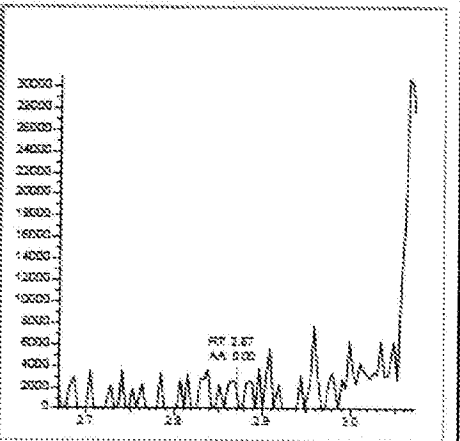
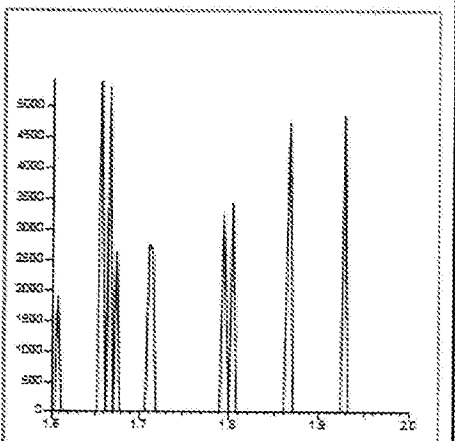
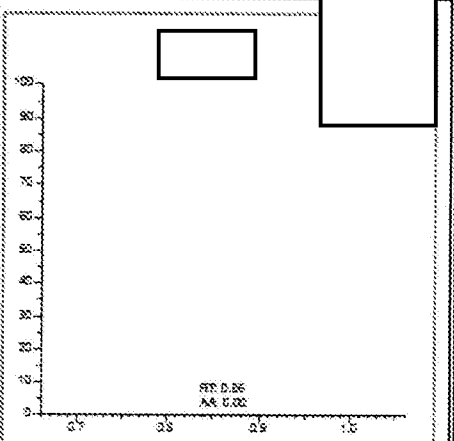
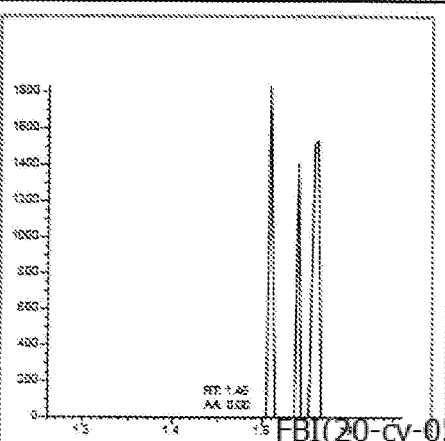
b6 -1  
 b7C -1

Compound:	<b>midazolam</b>	Compound:	<b>nordiazepam</b>	Compound:	<b>oxazepam</b>	Compound:	<b>phenazepam</b>
RT(exp)	2.67	RT(exp)	3.19	RT(exp)	2.98	RT(exp)	3.45
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>prazepam</b>	Compound:	<b>temazepam</b>	Compound:	<b>tetrazepam</b>	Compound:	<b>triazolam</b>
RT(exp)	5.33	RT(exp)	3.27	RT(exp)	3.68	RT(exp)	3.12
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

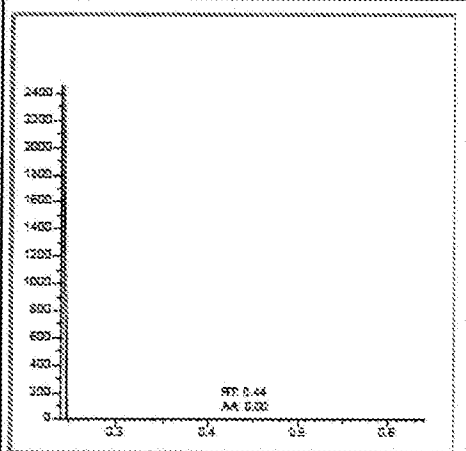
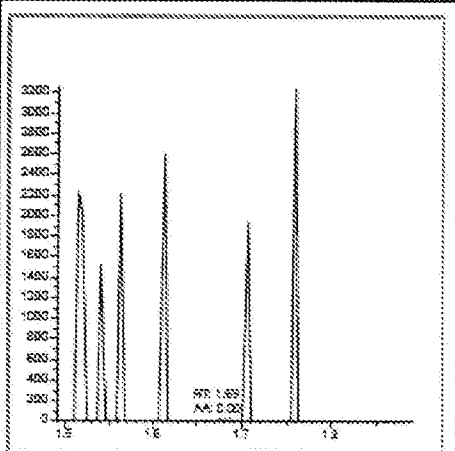
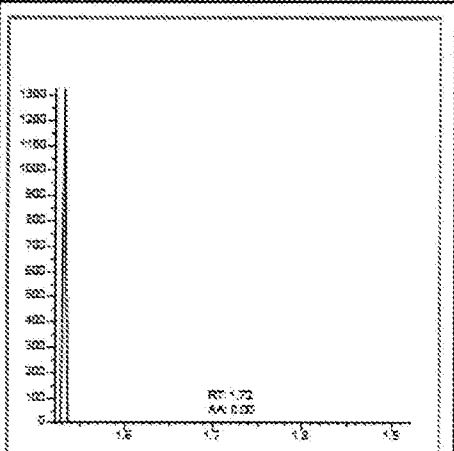
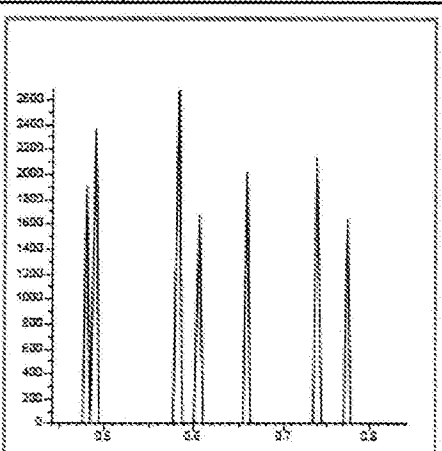
b6 -1  
b7C -1

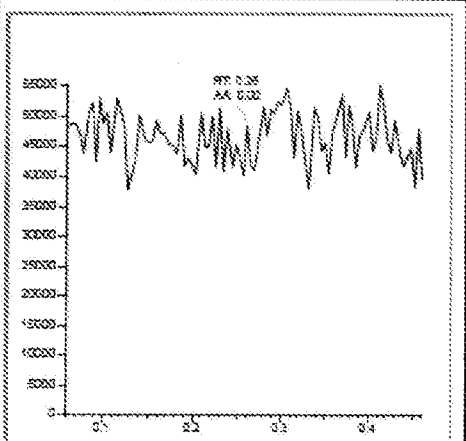
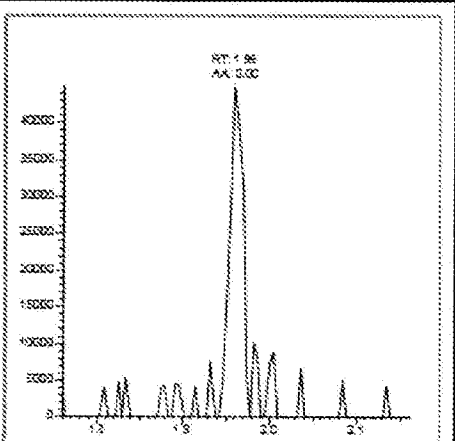
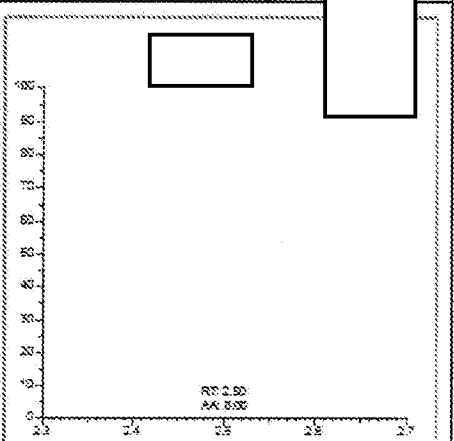
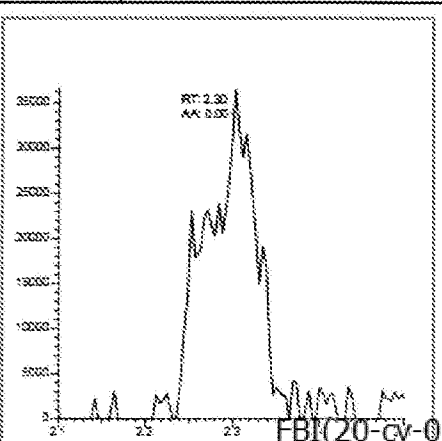
Compound:	<b>6-acetylmorphine</b>	Compound:	<b>codeine</b>	Compound:	<b>dihydrocodeine</b>	Compound:	<b>dihydromorphone</b>
RT(exp)	1.77	RT(exp)	1.54	RT(exp)	1.5	RT(exp)	0.49
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>EDDP</b>	Compound:	<b>hydrocodone</b>	Compound:	<b>hydromorphone</b>	Compound:	<b>norcodeine</b>
RT(exp)	2.87	RT(exp)	1.8	RT(exp)	0.86	RT(exp)	1.46
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

b6 -1  
b7C -1

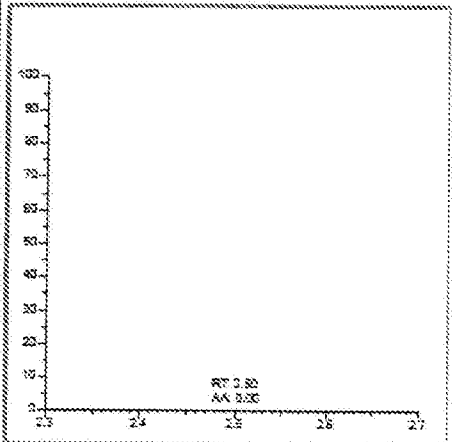
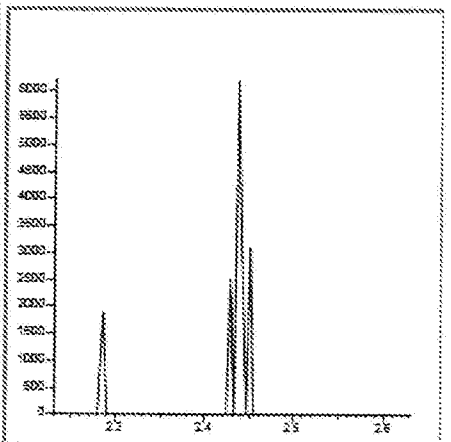
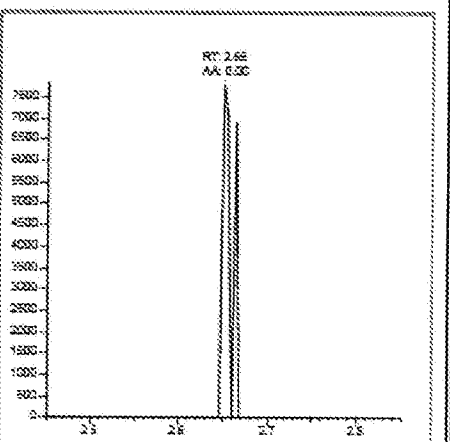
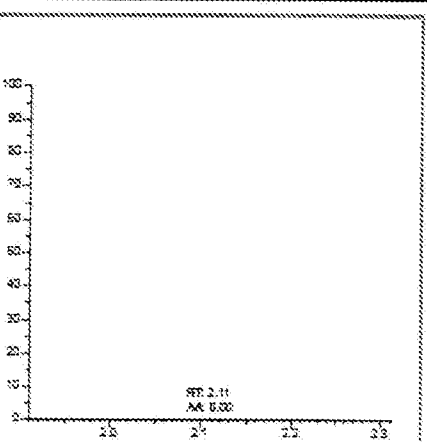


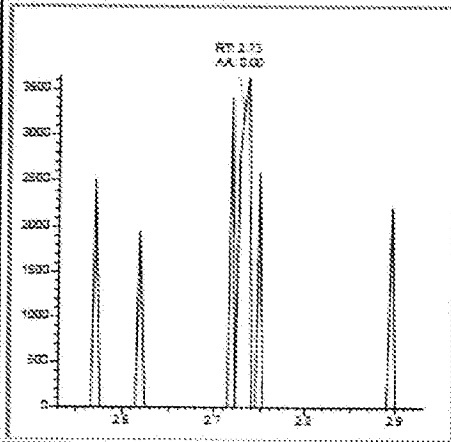
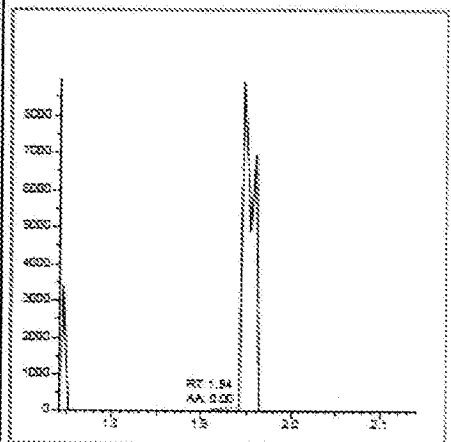
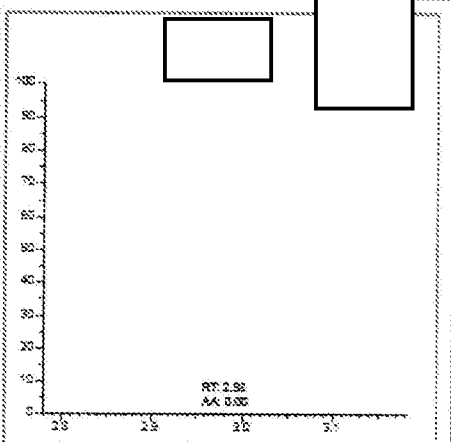
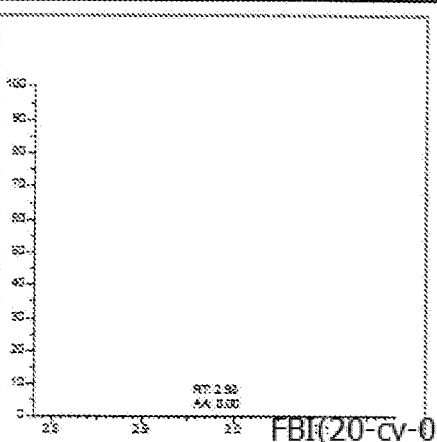
Compound:	<b>normorphine</b>	Compound:	<b>noroxycodone</b>	Compound:	<b>oxycodone</b>	Compound:	<b>oxymorphone</b>
RT(exp)	0.44	RT(exp)	1.69	RT(exp)	1.72	RT(exp)	0.64
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>ecgonine methyl ester</b>	Compound:	<b>benzoylecgonine</b>	Compound:	<b>cocaethylene</b>	Compound:	<b>cocaine</b>
RT(exp)	0.26	RT(exp)	1.96	RT(exp)	2.5	RT(exp)	2.3
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

b6 -1  
b7C -1

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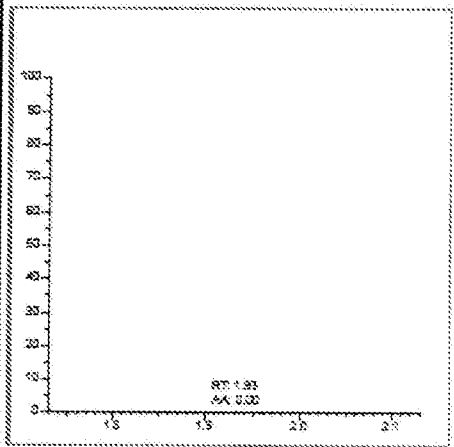
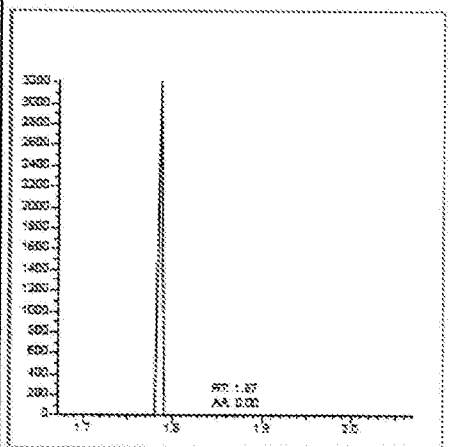
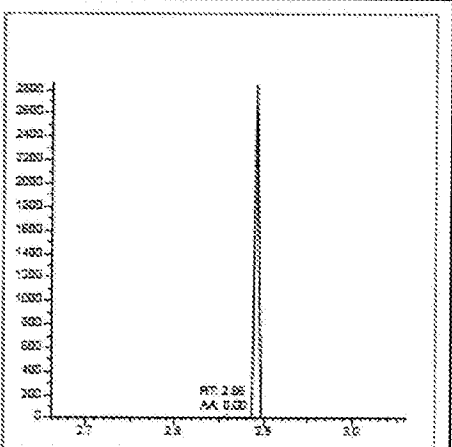
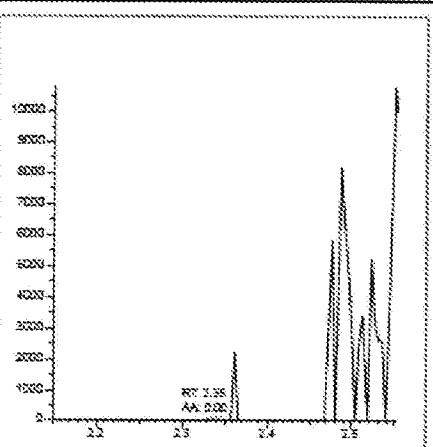
Compound:	<b>brompheniramine</b>	Compound:	<b>chlorpheniramine</b>	Compound:	<b>dextromethorphan</b>	Compound:	<b>dextrorphan</b>
RT(exp)	2.5	RT(exp)	2.43	RT(exp)	2.65	RT(exp)	2.11
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

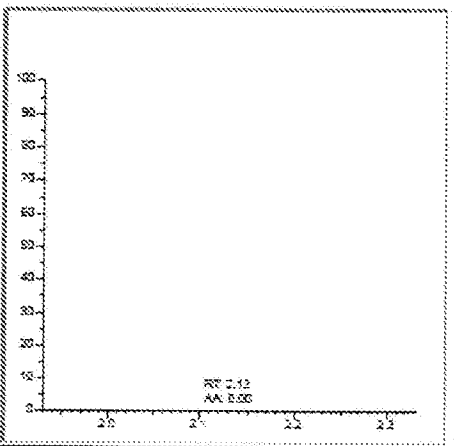
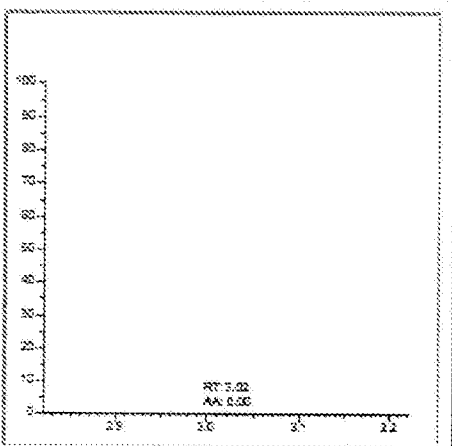
Compound:	<b>diphenhydramine</b>	Compound:	<b>doxylamine</b>	Compound:	<b>hydroxyzine</b>	Compound:	<b>norchlorcyclizine</b>
RT(exp)	2.73	RT(exp)	1.94	RT(exp)	2.98	RT(exp)	2.98
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

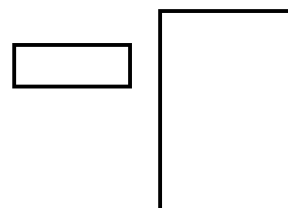
b6 -1  
 b7C -1

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sb

Compound:	<b>pheniramine</b>	Compound:	<b>tetrahydrozoline</b>	Compound:	<b>zaleplon</b>	Compound:	<b>zolpidem</b>
RT(exp)	1.93	RT(exp)	1.87	RT(exp)	2.86	RT(exp)	2.35
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>zopiclone</b>	Compound:	<b>duloxetine</b>
RT(exp)	2.13	RT(exp)	3.02
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A
m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A
			



b6 -1  
 b7C -1

## Exclusionary Screening by UPLC/FTMS

Batch: 20170928

Method: ExclusionSOP\_TargetingScreening

Inst. Method:

Acquired: 9/28/2017 23:16

Sample Type: Unknown

Vial Position: 1:D.5

Lab Name: FBI Laboratory

Assay: Exclusionary Screening TOX 215

Sample ncb

Comment \_\_\_\_\_

File 20170928\_33

Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
●	d5-alprazolam	+	1.79E+07	3.07 (-0.03)	314.1215	314.1221	0.57	100.00	7 of 7	
●	d5-hydroxalprazolam	+	3.30E+06	2.91 (-0.03)	330.1165	330.1169	0.49	100.00	4 of 6	
●	d4-clonazepam	+	6.82E+05	3.08 (-0.03)	320.0735	320.0739	0.49	100.00	5 of 5	
●	d4-7-aminoclonazepam	+	2.85E+06	2.06 (-0.01)	290.0993	290.0997	0.40	100.00	4 of 5	
●	d5-diazepam	+	1.41E+07	3.7 (-0.05)	290.1103	290.1107	0.36	100.00	7 of 7	
●	d5-oxazepam	+	1.56E+06	2.99 (-0.01)	292.0896	292.0900	0.43	100.00	4 of 5	
●	d6-zolpidem	+	9.83E+06	2.36 (-0.01)	314.2134	314.2136	0.19	100.00	3 of 3	
●	d3-benzoyllecgonine	+	6.69E+07	1.96 (-0.01)	293.1575	293.1579	0.42	100.00	4 of 4	
●	d3-diphenhydramine	+	5.49E+06	2.73 (0)	259.1884	259.1887	0.30	100.00	3 of 3	
●	d6-oxycodone	+	2.92E+07	1.71 (-0.01)	322.1920	322.1925	0.47	100.00	4 of 5	
●	d3-morphine	+	2.48E+07	0.56 (0)	289.1626	289.1629	0.30	100.00	5 of 5	
●	d3-hydrocodone	+	2.60E+07	1.8 (-0.03)	303.1783	303.1787	0.49	100.00	3 of 4	
	morphine	+	N/A	N/A (N/A)	286.1438	N/A	N/A	N/A	N/A	
	hydroxalprazolam	+	N/A	N/A (N/A)	325.0851	N/A	N/A	N/A	N/A	
	hydroxymidazolam	+	N/A	N/A (N/A)	342.0804	N/A	N/A	N/A	N/A	
	hydroxytriazolam	+	N/A	N/A (N/A)	359.0461	N/A	N/A	N/A	N/A	
	7-aminoclonazepam	+	N/A	N/A (N/A)	286.0742	N/A	N/A	N/A	N/A	
	7-aminoflunitrazepam	+	N/A	N/A (N/A)	284.1194	N/A	N/A	N/A	N/A	
	alprazolam	+	N/A	N/A (N/A)	309.0902	N/A	N/A	N/A	N/A	
	bromazepam	+	N/A	N/A (N/A)	316.0080	N/A	N/A	N/A	N/A	
	chlordiazepoxide	+	N/A	N/A (N/A)	300.0898	N/A	N/A	N/A	N/A	
	clonazepam	+	N/A	N/A (N/A)	316.0484	N/A	N/A	N/A	N/A	
	desalkylflurazepam	+	N/A	N/A (N/A)	289.0539	N/A	N/A	N/A	N/A	
	desmethylflunitrazepam	+	N/A	N/A (N/A)	300.0779	N/A	N/A	N/A	N/A	
	diazepam	+	N/A	N/A (N/A)	285.0789	N/A	N/A	N/A	N/A	
	estazolam	+	N/A	N/A (N/A)	295.0745	N/A	N/A	N/A	N/A	
	etizolam	+	N/A	N/A (N/A)	343.0779	N/A	N/A	N/A	N/A	
	flunitrazepam	+	N/A	N/A (N/A)	314.0936	N/A	N/A	N/A	N/A	
	flurazepam	+	N/A	N/A (N/A)	388.1586	N/A	N/A	N/A	N/A	

b7E -2

b6 -1  
b7C -1

## Exclusionary Screening by UPLC/FTMS

Batch: 20170928

Method: ExclusionSOP\_TargetingScreening

Inst. Method:

Acquired: 9/28/2017 23:16

Sample Type: Unknown

Vial Position: 1:D.5

Lab Name: FBI Laboratory

Assay: Exclusionary Screening TOX 215

Sample \_\_\_\_\_ ncb

Comment \_\_\_\_\_

File \_\_\_\_\_ 20170928 33

Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	lorazepam	+	N/A	N/A (N/A)	321.0192	N/A	N/A	N/A	N/A	
	lormetazepam	+	N/A	N/A (N/A)	335.0349	N/A	N/A	N/A	N/A	
	medazepam	+	N/A	N/A (N/A)	271.0997	N/A	N/A	N/A	N/A	
	midazolam	+	N/A	N/A (N/A)	326.0855	N/A	N/A	N/A	N/A	
	nordiazepam	+	N/A	N/A (N/A)	271.0633	N/A	N/A	N/A	N/A	
	oxazepam	+	N/A	N/A (N/A)	287.0582	N/A	N/A	N/A	N/A	
	phenazepam	+	N/A	N/A (N/A)	348.9738	N/A	N/A	N/A	N/A	
	prazepam	+	N/A	N/A (N/A)	325.1102	N/A	N/A	N/A	N/A	
	temazepam	+	N/A	N/A (N/A)	301.0738	N/A	N/A	N/A	N/A	
	tetrazepam	+	N/A	N/A (N/A)	289.1102	N/A	N/A	N/A	N/A	
	triazolam	+	N/A	N/A (N/A)	343.0512	N/A	N/A	N/A	N/A	
	6-acetylmorphine	+	N/A	N/A (N/A)	328.1543	N/A	N/A	N/A	N/A	
	codeine	+	N/A	N/A (N/A)	300.1594	N/A	N/A	N/A	N/A	
	dihydrocodeine	+	N/A	N/A (N/A)	302.1751	N/A	N/A	N/A	N/A	
	dihydromorphone	+	N/A	N/A (N/A)	288.1594	N/A	N/A	N/A	N/A	
	EDDP	+	N/A	N/A (N/A)	278.1903	N/A	N/A	N/A	N/A	
	hydrocodone	+	N/A	N/A (N/A)	300.1594	N/A	N/A	N/A	N/A	
	hydromorphone	+	N/A	N/A (N/A)	286.1438	N/A	N/A	N/A	N/A	
	norcodeine	+	N/A	N/A (N/A)	286.1438	N/A	N/A	N/A	N/A	
	normorphine	+	N/A	N/A (N/A)	272.1281	N/A	N/A	N/A	N/A	
	noroxycodone	+	N/A	N/A (N/A)	302.1387	N/A	N/A	N/A	N/A	
	oxycodone	+	N/A	N/A (N/A)	316.1543	N/A	N/A	N/A	N/A	
	oxymorphone	+	N/A	N/A (N/A)	302.1387	N/A	N/A	N/A	N/A	
	ecgonine methyl ester	+	N/A	N/A (N/A)	200.1281	N/A	N/A	N/A	N/A	
	benzoylecgonine	+	N/A	N/A (N/A)	290.1387	N/A	N/A	N/A	N/A	
	cocaethylene	+	N/A	N/A (N/A)	318.1700	N/A	N/A	N/A	N/A	
	cocaine	+	N/A	N/A (N/A)	304.1543	N/A	N/A	N/A	N/A	
	brompheniramine	+	N/A	N/A (N/A)	319.0804	N/A	N/A	N/A	N/A	
	chlorpheniramine	+	N/A	N/A (N/A)	275.1310	N/A	N/A	N/A	N/A	

b7E -2

b6 -1  
b7C -1

2017-00469 1027-2017

## Exclusionary Screening by UPLC/FTMS

Batch: 20170928

Method: ExclusionSOP\_TargetingScreening

Inst. Method:

Acquired: 9/28/2017 23:16

Sample Type: Unknown

Vial Position: 1:D,5

Lab Name: FBI Laboratory

Assay: Exclusionary Screening TOX 215

Sample ncb

Comment \_\_\_\_\_

File 20170928\_33

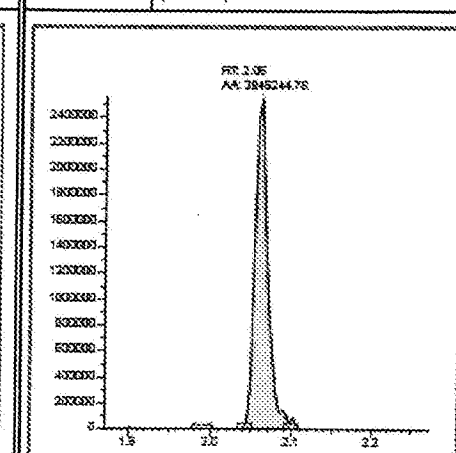
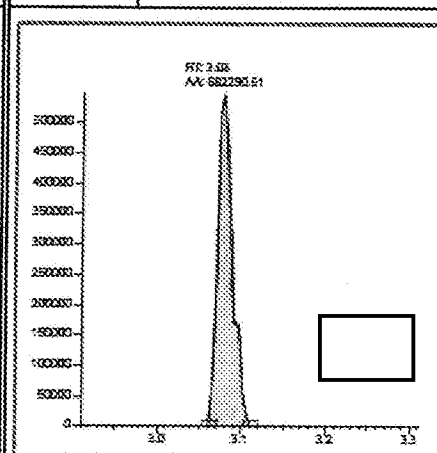
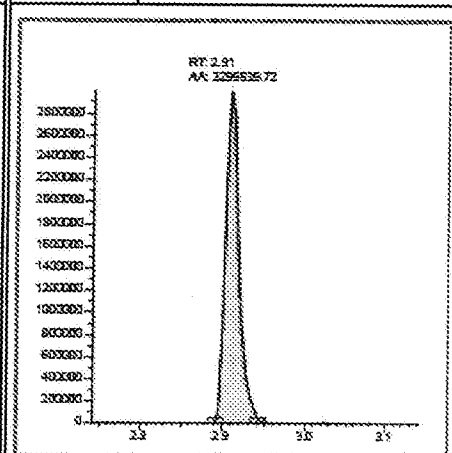
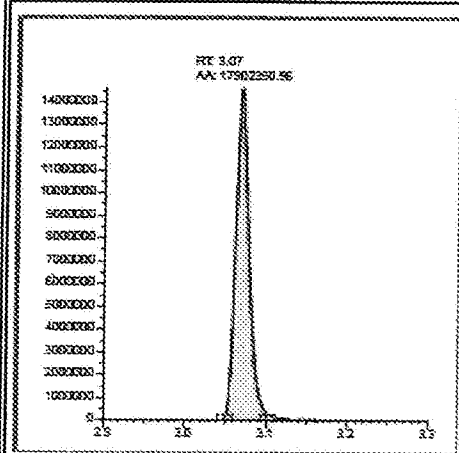
Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	dextromethorphan	+	N/A	N/A (N/A)	272.2009	N/A	N/A	N/A	N/A	
	dextrorphan	+	N/A	N/A (N/A)	258.1852	N/A	N/A	N/A	N/A	
	diphenhydramine	+	N/A	N/A (N/A)	256.1696	N/A	N/A	N/A	N/A	
	doxylamine	+	N/A	N/A (N/A)	271.1805	N/A	N/A	N/A	N/A	
	hydroxyzine	+	N/A	N/A (N/A)	375.1834	N/A	N/A	N/A	N/A	
	norchlorcyclizine	+	N/A	N/A (N/A)	287.1310	N/A	N/A	N/A	N/A	
	pheniramine	+	N/A	N/A (N/A)	241.1699	N/A	N/A	N/A	N/A	
	tetrahydrozoline	+	N/A	N/A (N/A)	201.1386	N/A	N/A	N/A	N/A	
	zaleplon	+	N/A	N/A (N/A)	306.1349	N/A	N/A	N/A	N/A	
	zolpidem	+	N/A	N/A (N/A)	308.1757	N/A	N/A	N/A	N/A	
	zopiclone	+	N/A	N/A (N/A)	389.1123	N/A	N/A	N/A	N/A	
	duloxetine	+	N/A	N/A (N/A)	298.1260	N/A	N/A	N/A	N/A	

b7E -2

b6 -1  
b7C -1

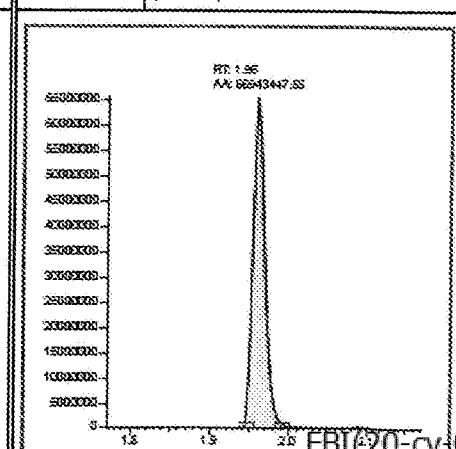
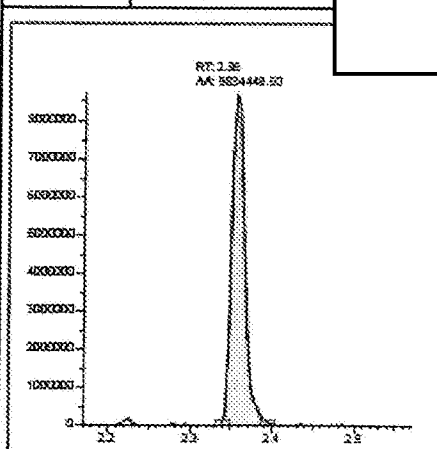
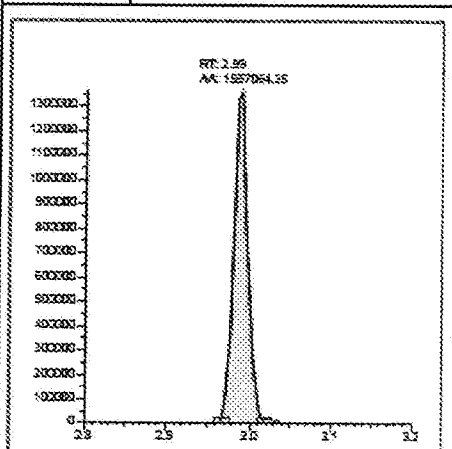
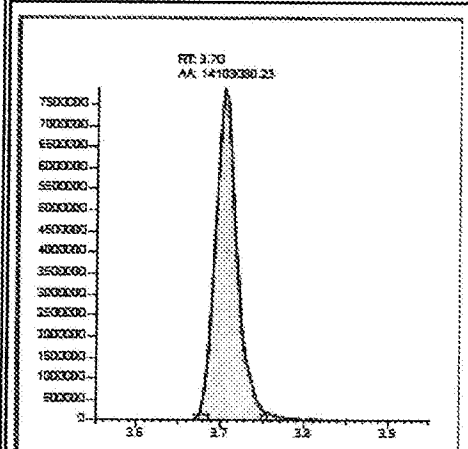
2017-00459 1027-2017

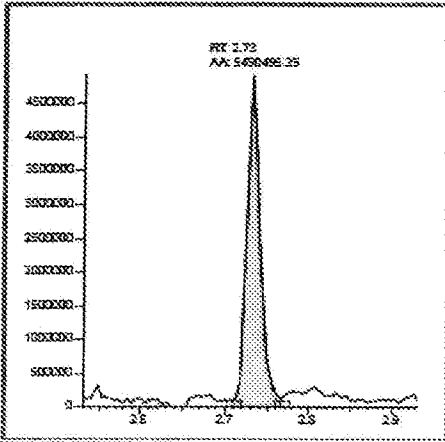
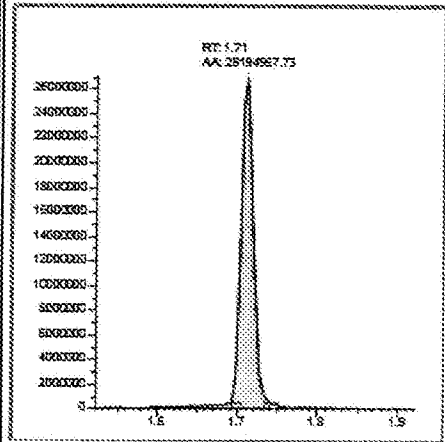
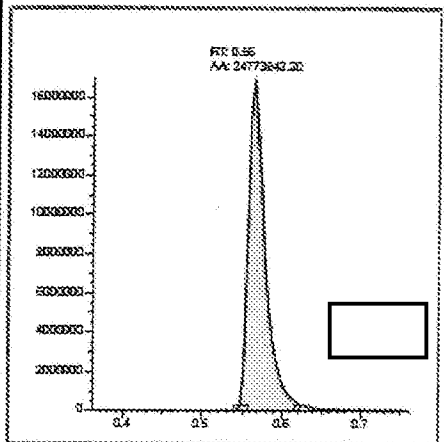
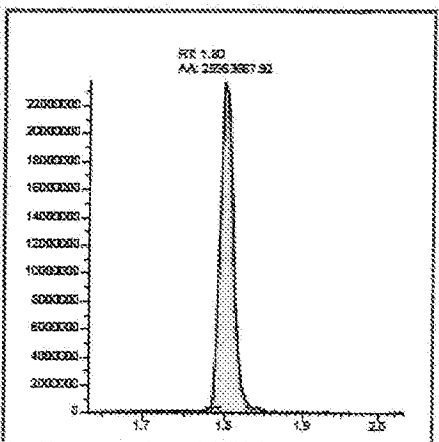
Compound:	<b>d5-alprazolam</b>	Compound:	<b>d5-hydroxalprazolam</b>	Compound:	<b>d4-clonazepam</b>	Compound:	<b>d4-7-aminoclonazepam</b>
RT(exp)	3.1	RT(exp)	2.94	RT(exp)	3.11	RT(exp)	2.07
RT(delta)	3.07 (-0.03)	RT(delta)	2.91 (-0.03)	RT(delta)	3.08 (-0.03)	RT(delta)	2.06 (-0.01)
Area:	17902000	Area:	3299500	Area:	682290	Area:	2849200
m/z:	314.1221	m/z:	330.1169	m/z:	320.0739	m/z:	290.0997
delta	(mmu): 0.57	delta	(mmu): 0.49	delta	(mmu): 0.49	delta	(mmu): 0.4



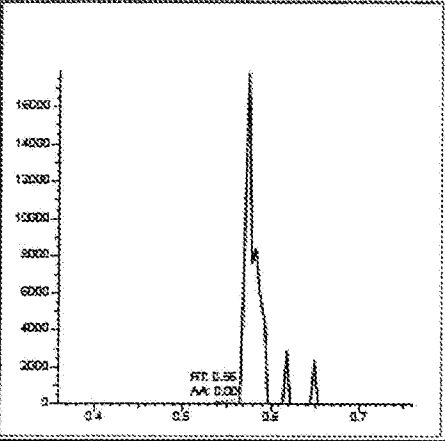
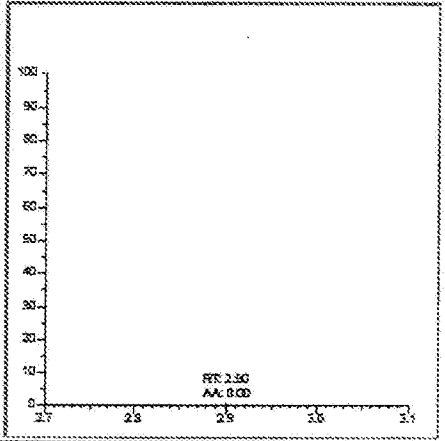
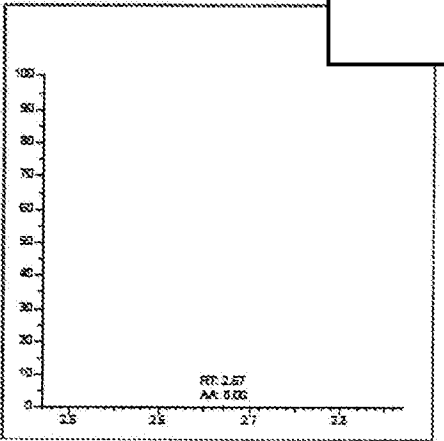
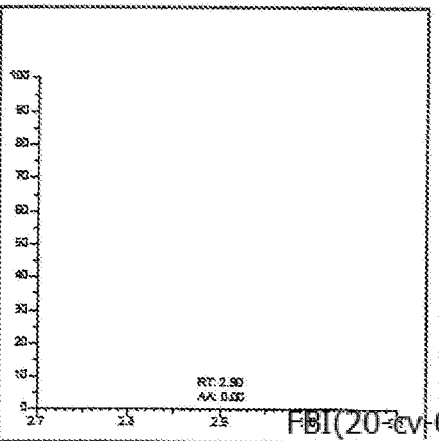
b6 -1  
b7C -1

Compound:	<b>d5-diazepam</b>	Compound:	<b>d5-oxazepam</b>	Compound:	<b>d6-zolpidem</b>	Compound:	<b>d3-benzoyllecgonine</b>
RT(exp)	3.75	RT(exp)	3	RT(exp)	2.37	RT(exp)	1.97
RT(delta)	3.7 (-0.05)	RT(delta)	2.99 (-0.01)	RT(delta)	2.36 (-0.01)	RT(delta)	1.96 (-0.01)
Area:	14103000	Area:	1557100	Area:	9834400	Area:	66943000
m/z:	290.1107	m/z:	292.0900	m/z:	314.2136	m/z:	293.1579
delta	(mmu): 0.36	delta	(mmu): 0.43	delta	(mmu): 0.19	delta	(mmu): 0.42

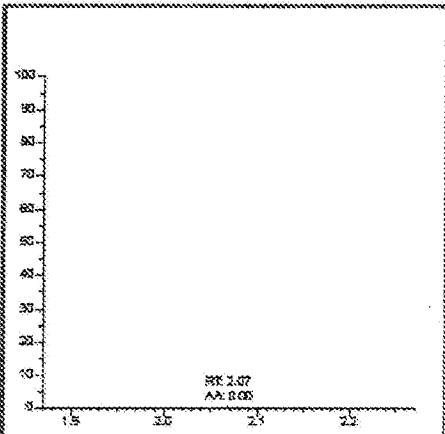
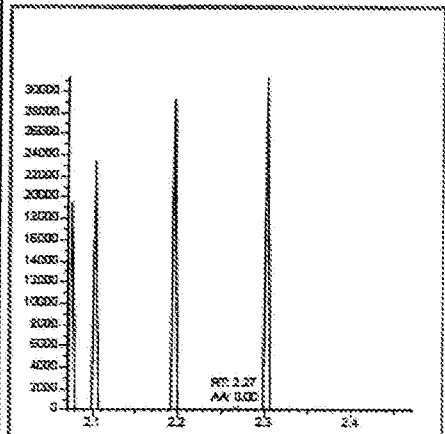
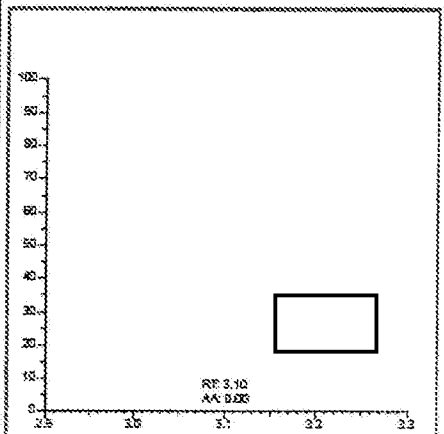
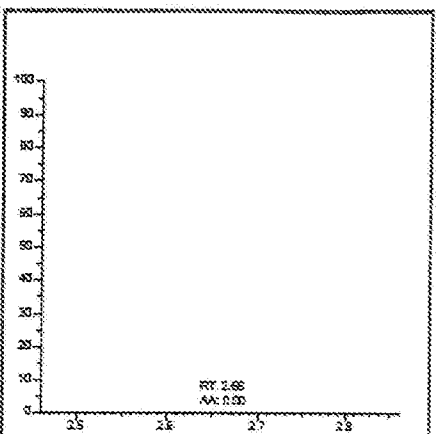


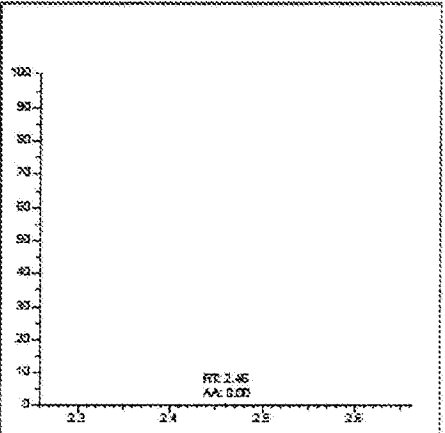
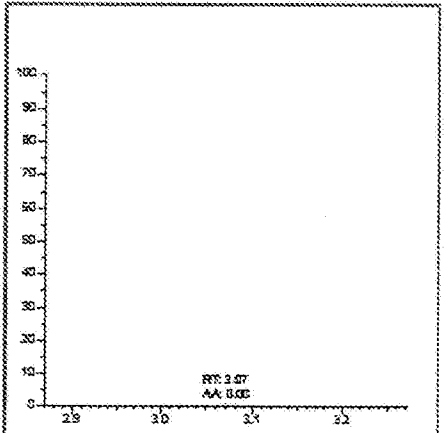
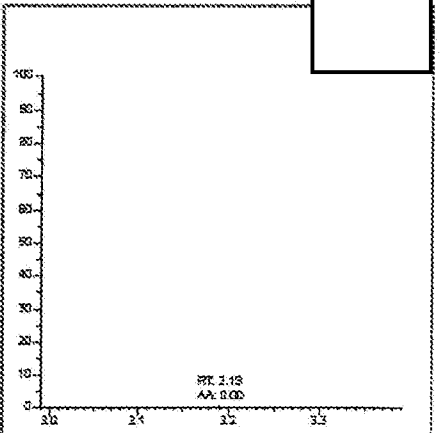
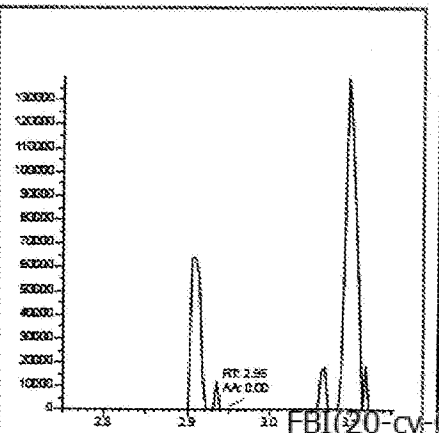
Compound:	<b>d3-diphenhydramine</b>	Compound:	<b>d6-oxycodone</b>	Compound:	<b>d3-morphine</b>	Compound:	<b>d3-hydrocodone</b>
RT(exp)	2.73	RT(exp)	1.72	RT(exp)	0.56	RT(exp)	1.83
RT(delta)	2.73 (0)	RT(delta)	1.71 (-0.01)	RT(delta)	0.56 (0)	RT(delta)	1.8 (-0.03)
Area:	5490500	Area:	29195000	Area:	24774000	Area:	25954000
m/z:	259.1887	m/z:	322.1925	m/z:	289.1629	m/z:	303.1787
delta	(mmu): 0.3	delta	(mmu): 0.47	delta	(mmu): 0.3	delta	(mmu): 0.49
							

b6 -1  
b7C -1

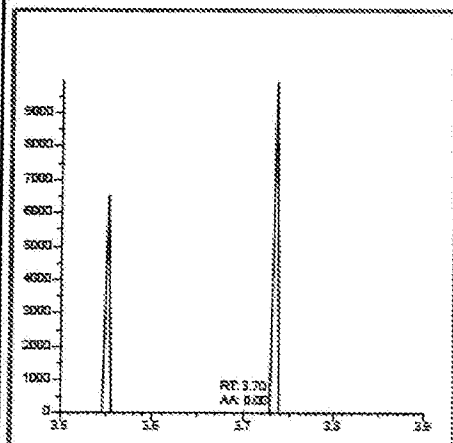
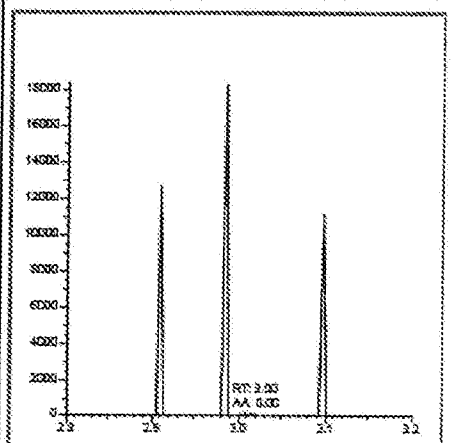
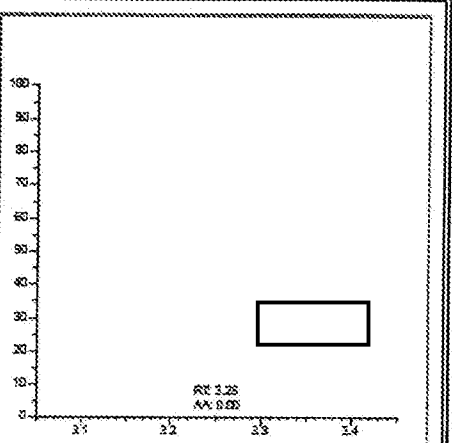
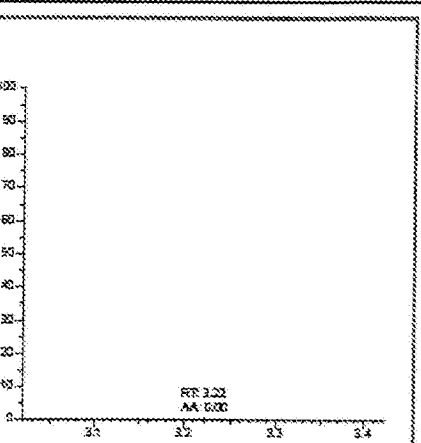
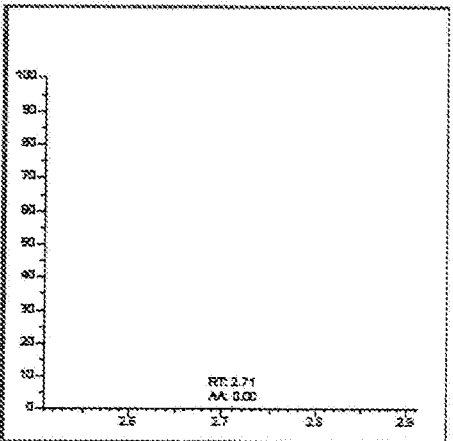
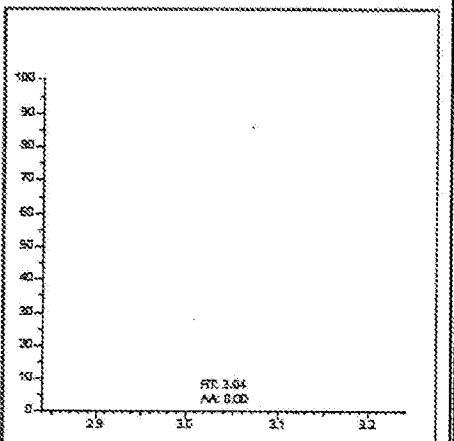
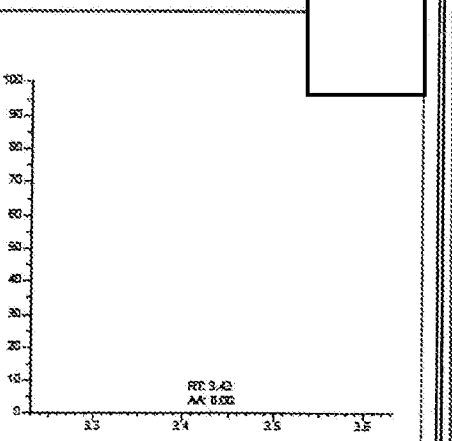
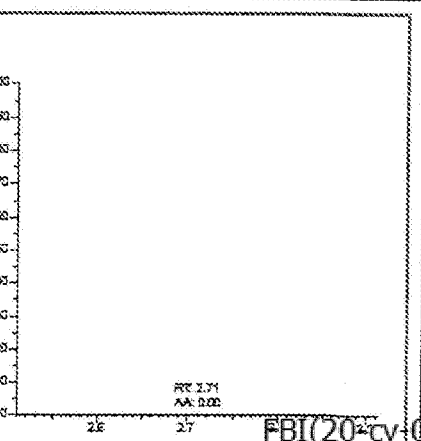
Compound:	<b>morphine</b>	Compound:	<b>hydroxyalprazolam</b>	Compound:	<b>hydroxymidazolam</b>	Compound:	<b>hydroxytriazolam</b>
RT(exp)	0.56	RT(exp)	2.9	RT(exp)	2.67	RT(exp)	2.9
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							



Compound:	<b>7-aminoclonazepam</b>	Compound:	<b>7-aminoflunitrazepam</b>	Compound:	<b>alprazolam</b>	Compound:	<b>bromazepam</b>
RT(exp)	2.07	RT(exp)	2.27	RT(exp)	3.1	RT(exp)	2.66
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>chlordiazepoxide</b>	Compound:	<b>clonazepam</b>	Compound:	<b>desalkylflurazepam</b>	Compound:	<b>desmethylflunitrazepam</b>
RT(exp)	2.46	RT(exp)	3.07	RT(exp)	3.19	RT(exp)	2.95
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

b6 -1  
 b7C -1

Compound: <b>diazepam</b>	Compound: <b>estazolam</b>	Compound: <b>etizolam</b>	Compound: <b>flunitrazepam</b>
RT(exp) 3.7	RT(exp) 3	RT(exp) 3.25	RT(exp) 3.22
RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)
Area: N/A	Area: N/A	Area: N/A	Area: N/A
m/z:	m/z:	m/z:	m/z:
delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A
			
Compound: <b>flurazepam</b>	Compound: <b>lorazepam</b>	Compound: <b>lormetazepam</b>	Compound: <b>medazepam</b>
RT(exp) 2.71	RT(exp) 3.04	RT(exp) 3.43	RT(exp) 2.71
RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)
Area: N/A	Area: N/A	Area: N/A	Area: N/A
m/z:	m/z:	m/z:	m/z:
delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A
			

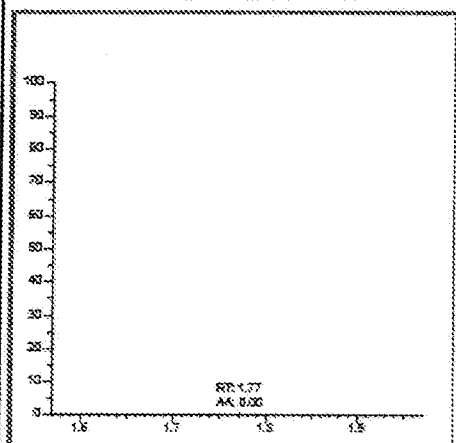
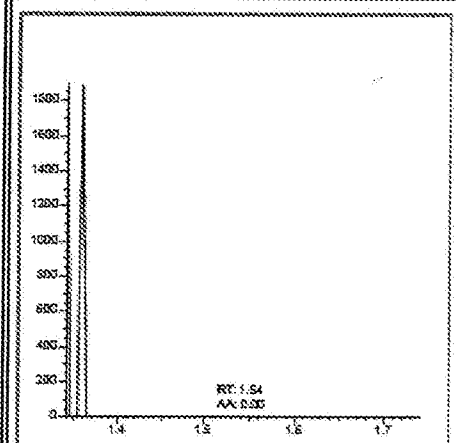
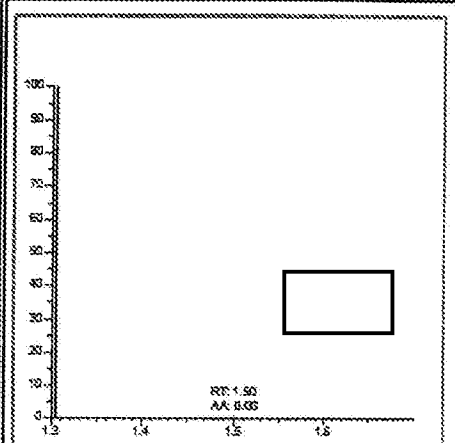
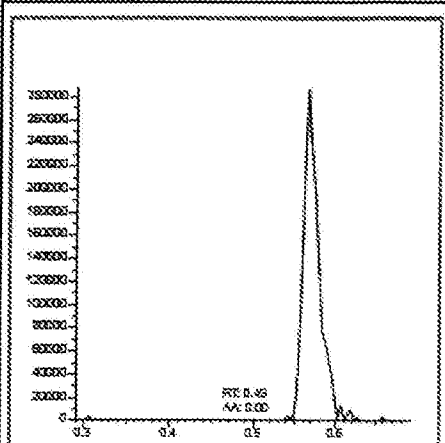
b6 -1  
b7C -1

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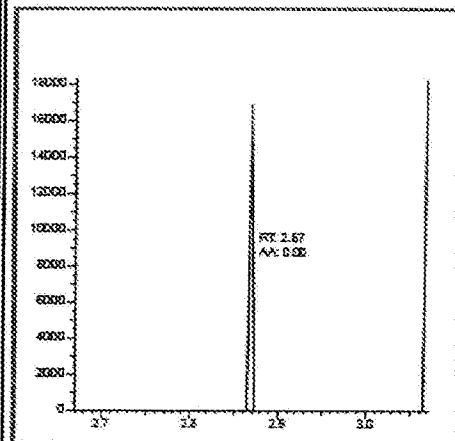
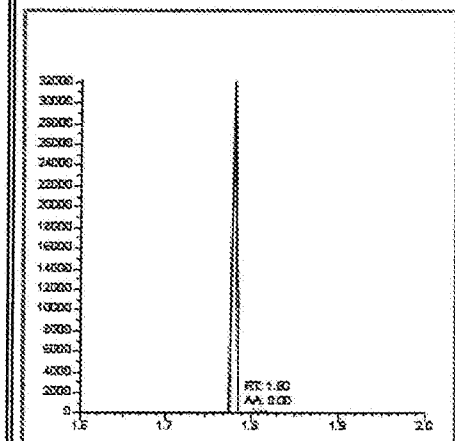
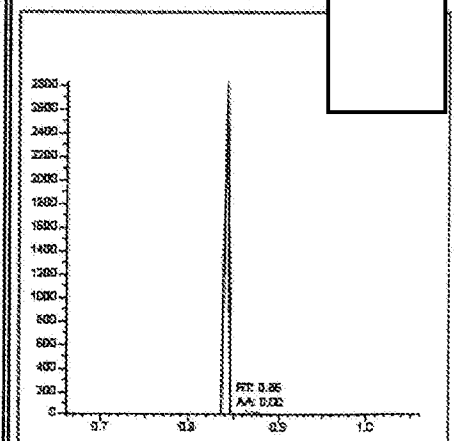
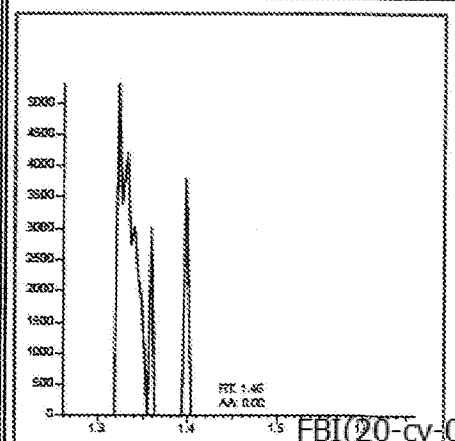
Compound:	<b>midazolam</b>	Compound:	<b>nordiazepam</b>	Compound:	<b>oxazepam</b>	Compound:	<b>phenazepam</b>
RT(exp)	2.67	RT(exp)	3.19	RT(exp)	2.98	RT(exp)	3.45
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A

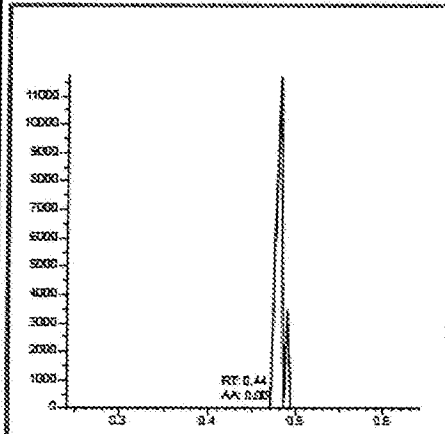
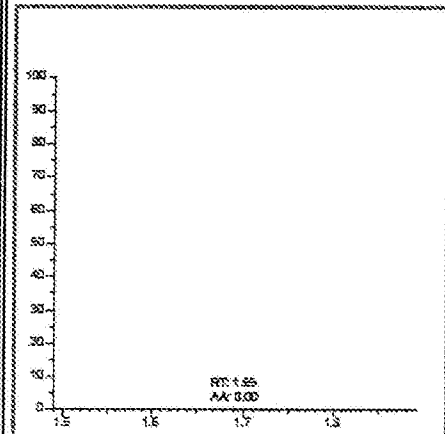
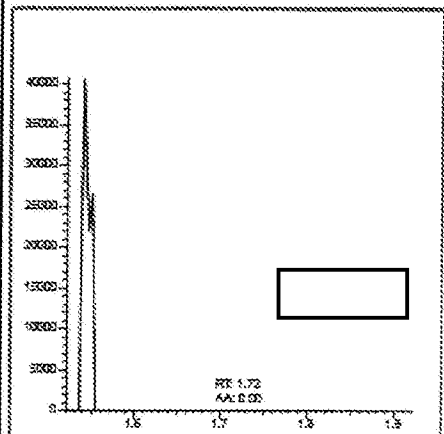
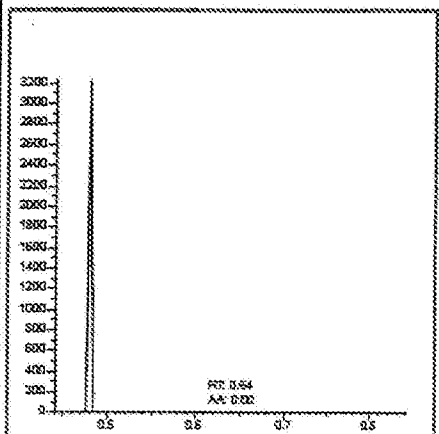
b6 -1  
b7C -1

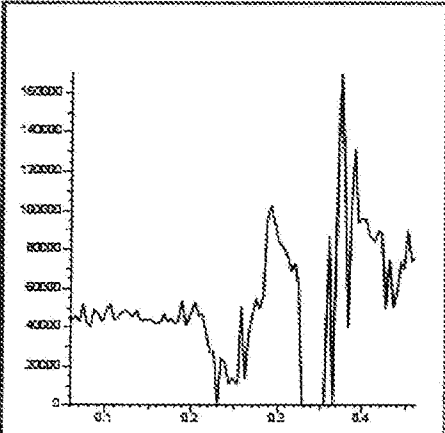
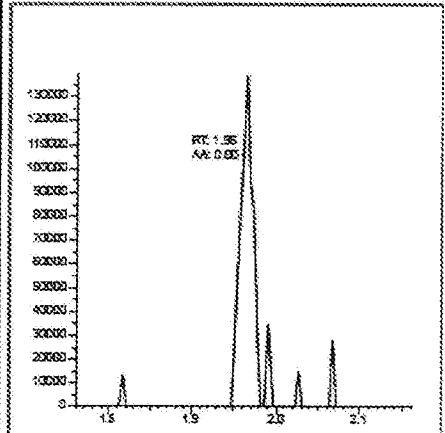
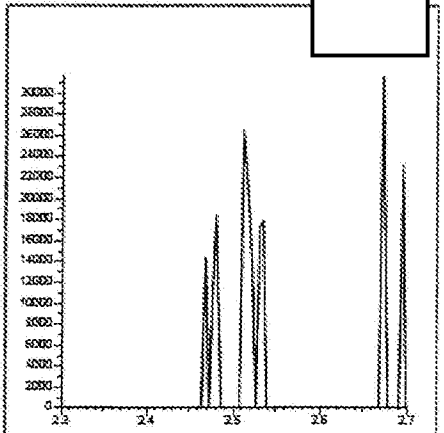
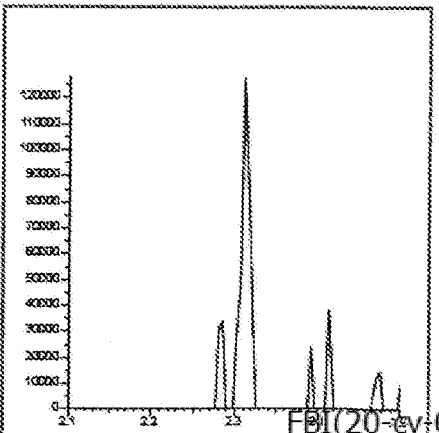
Compound:	<b>prazepam</b>	Compound:	<b>temazepam</b>	Compound:	<b>tetrazepam</b>	Compound:	<b>triazolam</b>
RT(exp)	5.33	RT(exp)	3.27	RT(exp)	3.68	RT(exp)	3.12
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A

Compound:	<b>6-acetylmorphine</b>	Compound:	<b>codeine</b>	Compound:	<b>dihydrocodeine</b>	Compound:	<b>dihydromorphone</b>
RT(exp)	1.77	RT(exp)	1.54	RT(exp)	1.5	RT(exp)	0.49
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

b6 -1  
 b7C -1

Compound:	<b>EDDP</b>	Compound:	<b>hydrocodone</b>	Compound:	<b>hydromorphone</b>	Compound:	<b>norcodeine</b>
RT(exp)	2.87	RT(exp)	1.8	RT(exp)	0.86	RT(exp)	1.46
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

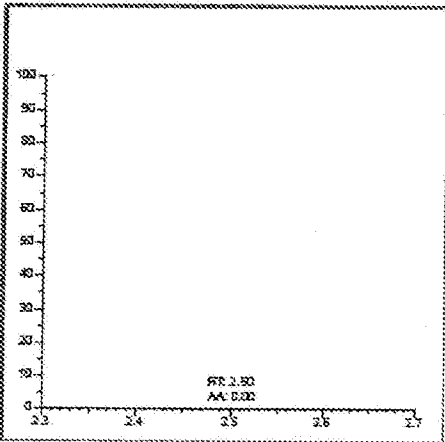
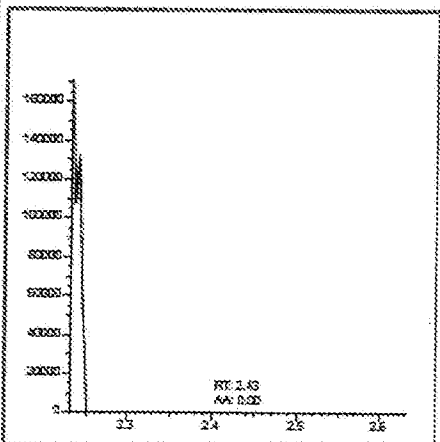
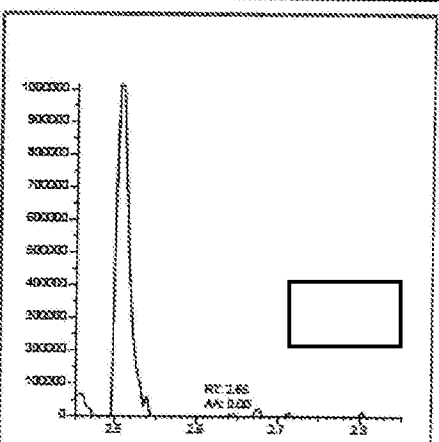
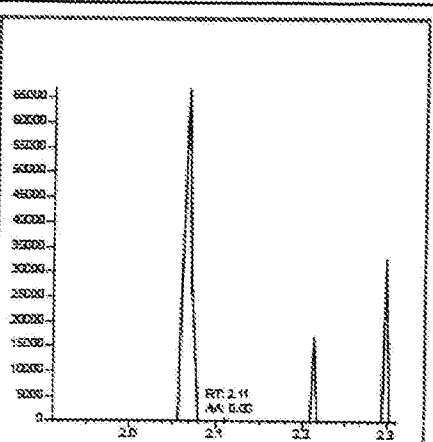
Compound:	<b>normorphine</b>	Compound:	<b>noroxycodone</b>	Compound:	<b>oxycodone</b>	Compound:	<b>oxymorphone</b>
RT(exp)	0.44	RT(exp)	1.69	RT(exp)	1.72	RT(exp)	0.64
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

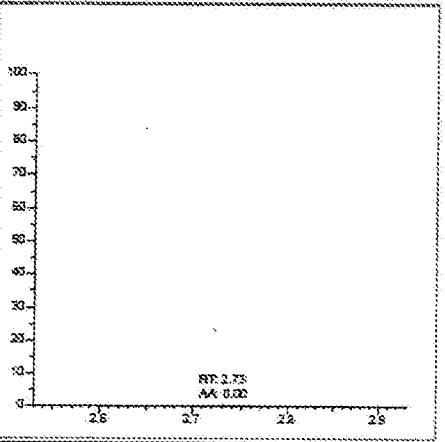
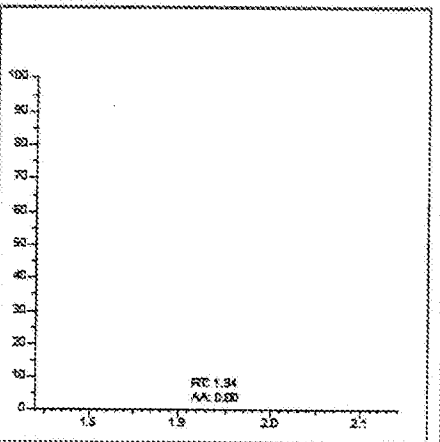
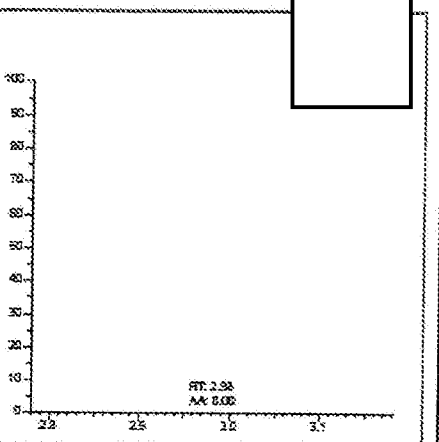
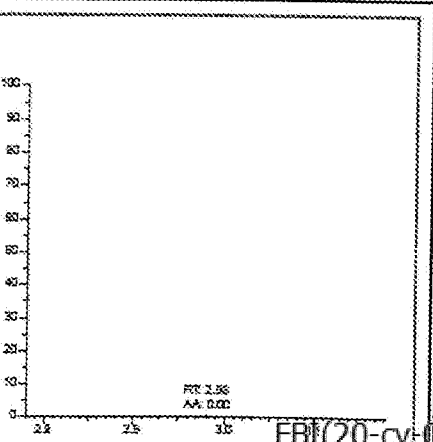
Compound:	<b>ecgonine methyl ester</b>	Compound:	<b>benzoylecgonine</b>	Compound:	<b>cocaethylene</b>	Compound:	<b>cocaine</b>
RT(exp)	0.26	RT(exp)	1.96	RT(exp)	2.5	RT(exp)	2.3
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

b6 -1  
b7C -1

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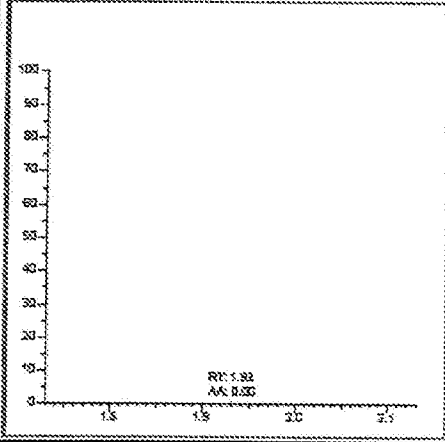
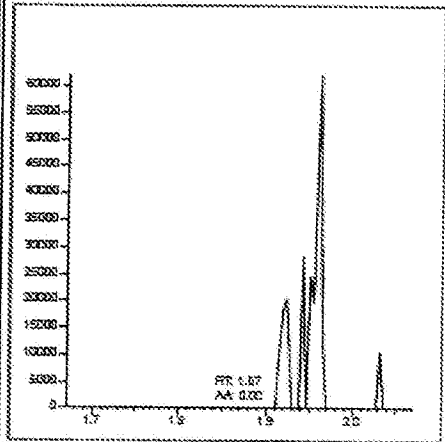
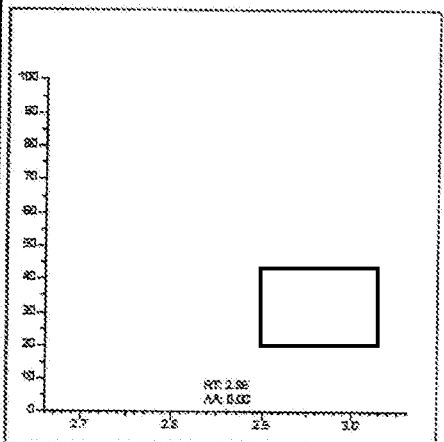
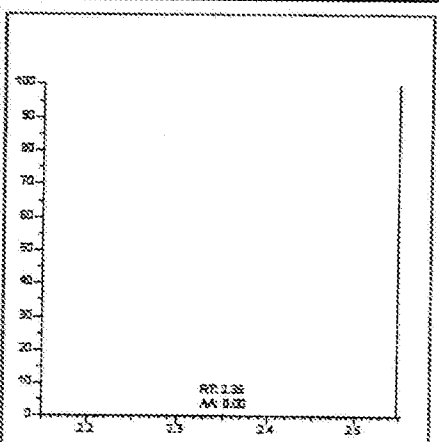
ncb

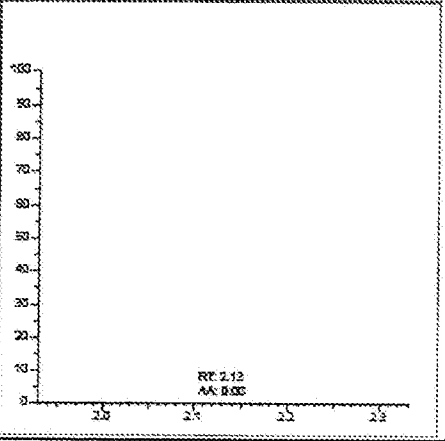
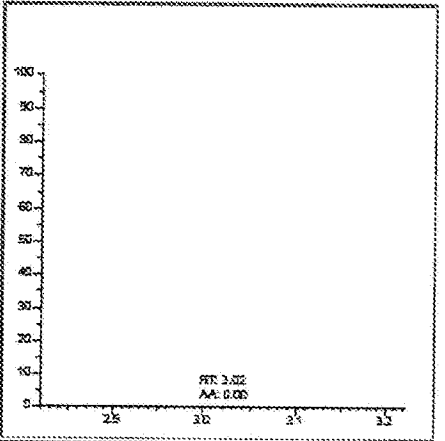
Compound:	<b>brompheniramine</b>	Compound:	<b>chlorpheniramine</b>	Compound:	<b>dextromethorphan</b>	Compound:	<b>dextroprphan</b>
RT(exp)	2.5	RT(exp)	2.43	RT(exp)	2.65	RT(exp)	2.11
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>diphenhydramine</b>	Compound:	<b>doxylamine</b>	Compound:	<b>hydroxyzine</b>	Compound:	<b>norchlorcyclizine</b>
RT(exp)	2.73	RT(exp)	1.94	RT(exp)	2.98	RT(exp)	2.98
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

b6 -1  
b7C -1

ncb

Compound:	<b>pheniramine</b>	Compound:	<b>tetrahydrozoline</b>	Compound:	<b>zaleplon</b>	Compound:	<b>zolpidem</b>
RT(exp)	1.93	RT(exp)	1.87	RT(exp)	2.86	RT(exp)	2.35
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>zopiclone</b>	Compound:	<b>duloxetine</b>
RT(exp)	2.13	RT(exp)	3.02
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A
m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A
			

b6 -1  
b7C -1

## Exclusionary Screening by UPLC/FTMS

Batch: 20170929

Method: ExclusionSOP\_TargetingScreening

Inst. Method:

Acquired: 9/29/2017 10:28

Sample Type: Unknown

Vial Position: 2:A,7

Lab Name: FBI Laboratory

Assay: Exclusionary Screening TOX 215

Sample

2017-00469, 2, urine

Comment

File

20170929\_04

Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	d5-alprazolam	+	N/A	N/A (N/A)	314.1215	N/A	N/A	N/A	N/A	
●	d5-hydroxalprazolam	+	3.58E+06	2.9 (-0.04)	330.1165	330.1173	0.86	92.00	4 of 6	
●	d4-clonazepam	+	7.35E+05	3.07 (-0.04)	320.0735	320.0742	0.74	100.00	4 of 4	
●	d4-7-aminoclonazepam	+	1.67E+06	2.03 (-0.04)	290.0993	290.1002	0.92	70.00	4 of 5	
	d5-diazepam	+	N/A	N/A (N/A)	290.1103	N/A	N/A	N/A	N/A	
●	d5-oxazepam	+	1.62E+06	2.98 (-0.02)	292.0896	292.0902	0.64	100.00	4 of 5	
●	d6-zolpidem	+	6.63E+06	2.34 (-0.03)	314.2134	314.2141	0.74	100.00	3 of 3	
●	d3-benzoylcegonine	+	3.13E+07	1.96 (-0.01)	293.1575	293.1583	0.82	99.00	3 of 4	
●	d3-diphenhydramine	+	7.17E+06	2.72 (-0.01)	259.1884	259.1893	0.85	95.00	3 of 3	
●	d6-oxycodone	+	1.20E+07	1.69 (-0.03)	322.1920	322.1928	0.78	100.00	3 of 4	
●	d3-morphine	+	7.12E+06	0.54 (-0.02)	289.1626	289.1633	0.73	100.00	3 of 3	
●	d3-hydrocodone	+	5.27E+06	1.79 (-0.04)	303.1783	303.1786	0.37	100.00	3 of 3	
	morphine	+	N/A	N/A (N/A)	286.1438	N/A	N/A	N/A	N/A	
	hydroxalprazolam	+	N/A	N/A (N/A)	325.0851	N/A	N/A	N/A	N/A	
	hydroxymidazolam	+	N/A	N/A (N/A)	342.0804	N/A	N/A	N/A	N/A	
	hydroxytriazolam	+	N/A	N/A (N/A)	359.0461	N/A	N/A	N/A	N/A	
	7-aminoclonazepam	+	N/A	N/A (N/A)	286.0742	N/A	N/A	N/A	N/A	
	7-aminoflunitrazepam	+	N/A	N/A (N/A)	284.1194	N/A	N/A	N/A	N/A	
	alprazolam	+	N/A	N/A (N/A)	309.0902	N/A	N/A	N/A	N/A	
	bromazepam	+	N/A	N/A (N/A)	316.0080	N/A	N/A	N/A	N/A	
	chlordiazepoxide	+	N/A	N/A (N/A)	300.0898	N/A	N/A	N/A	N/A	
	clonazepam	+	N/A	N/A (N/A)	316.0484	N/A	N/A	N/A	N/A	
	desalkylflurazepam	+	N/A	N/A (N/A)	289.0539	N/A	N/A	N/A	N/A	
	desmethyflunitrazepam	+	N/A	N/A (N/A)	300.0779	N/A	N/A	N/A	N/A	
	diazepam	+	N/A	N/A (N/A)	285.0789	N/A	N/A	N/A	N/A	
	estazolam	+	N/A	N/A (N/A)	295.0745	N/A	N/A	N/A	N/A	
	etizolam	+	N/A	N/A (N/A)	343.0779	N/A	N/A	N/A	N/A	
	flunitrazepam	+	N/A	N/A (N/A)	314.0936	N/A	N/A	N/A	N/A	
	flurazepam	+	N/A	N/A (N/A)	388.1586	N/A	N/A	N/A	N/A	

b7E -2

b6 -1

b7C -1



## Exclusionary Screening by UPLC/FTMS

Batch: 20170929  
 Method: ExclusionSOP\_TargetingScreening  
 Inst. Method:  
 Acquired: 9/29/2017 10:28  
 Sample Type: Unknown  
 Vial Position: 2:A,7

Lab Name: FBI Laboratory  
 Assay: Exclusionary Screening TOX 215

Sample 2017-00469, 2, urine

Comment

File 20170929\_04

b7E -2

Detected	Target Name	±	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	lorazepam	+	N/A	N/A (N/A)	321.0192	N/A		N/A N/A	N/A	
	lormetazepam	+	N/A	N/A (N/A)	335.0349	N/A		N/A N/A	N/A	
	medazepam	+	N/A	N/A (N/A)	271.0997	N/A		N/A N/A	N/A	
	midazolam	+	N/A	N/A (N/A)	326.0855	N/A		N/A N/A	N/A	
	nordiazepam	+	N/A	N/A (N/A)	271.0633	N/A		N/A N/A	N/A	
	oxazepam	+	N/A	N/A (N/A)	287.0582	N/A		N/A N/A	N/A	
	phenazepam	+	N/A	N/A (N/A)	348.9738	N/A		N/A N/A	N/A	
	prazepam	+	N/A	N/A (N/A)	325.1102	N/A		N/A N/A	N/A	
	temazepam	+	N/A	N/A (N/A)	301.0738	N/A		N/A N/A	N/A	
	tetrazepam	+	N/A	N/A (N/A)	289.1102	N/A		N/A N/A	N/A	
	triazolam	+	N/A	N/A (N/A)	343.0512	N/A		N/A N/A	N/A	
	6-acetylmorphine	+	N/A	N/A (N/A)	328.1543	N/A		N/A N/A	N/A	
	codeine	+	N/A	N/A (N/A)	300.1594	N/A		N/A N/A	N/A	
	dihydrocodeine	+	N/A	N/A (N/A)	302.1751	N/A		N/A N/A	N/A	
	dihydromorphone	+	N/A	N/A (N/A)	288.1594	N/A		N/A N/A	N/A	
	EDDP	+	N/A	N/A (N/A)	278.1903	N/A		N/A N/A	N/A	
	hydrocodone	+	N/A	N/A (N/A)	300.1594	N/A		N/A N/A	N/A	
	hydromorphone	+	N/A	N/A (N/A)	286.1438	N/A		N/A N/A	N/A	
	norcodeine	+	N/A	N/A (N/A)	286.1438	N/A		N/A N/A	N/A	
	normorphine	+	N/A	N/A (N/A)	272.1281	N/A		N/A N/A	N/A	
	noroxycodone	+	N/A	N/A (N/A)	302.1387	N/A		N/A N/A	N/A	
	oxycodone	+	N/A	N/A (N/A)	316.1543	N/A		N/A N/A	N/A	
	oxymorphone	+	N/A	N/A (N/A)	302.1387	N/A		N/A N/A	N/A	
	ecgonine methyl ester	+	N/A	N/A (N/A)	200.1281	N/A		N/A N/A	N/A	
	benzoylecgonine	+	N/A	N/A (N/A)	290.1387	N/A		N/A N/A	N/A	
	cocaethylene	+	N/A	N/A (N/A)	318.1700	N/A		N/A N/A	N/A	
●	cocaine	+	4.68E+06	2.31 (0.01)	304.1543	304.1554	1.03	90.00	3 of 3	
	brompheniramine	+	N/A	N/A (N/A)	319.0804	N/A		N/A N/A	N/A	
	chlorpheniramine	+	N/A	N/A (N/A)	275.1310	N/A		N/A N/A	N/A	

b6 -1  
 b7C -1

## Exclusionary Screening by UPLC/FTMS

Batch: 20170929

Method: ExclusionSOP\_TargetingScreening

Inst. Method:

Acquired: 9/29/2017 10:28

Sample Type: Unknown

Vial Position 2:A,7

Lab Name: FBI Laboratory

Assay: Exclusionary Screening TOX 215

Sample 2017-00469, 2, urine

Comment

File 20170929\_04

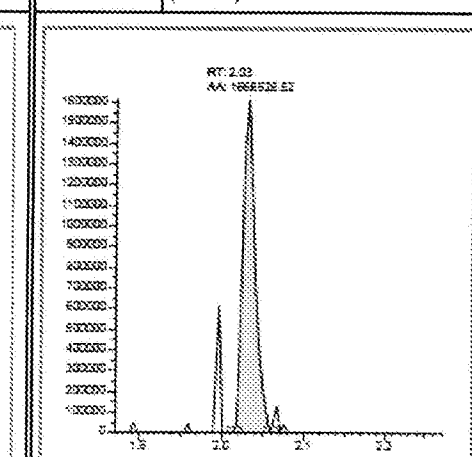
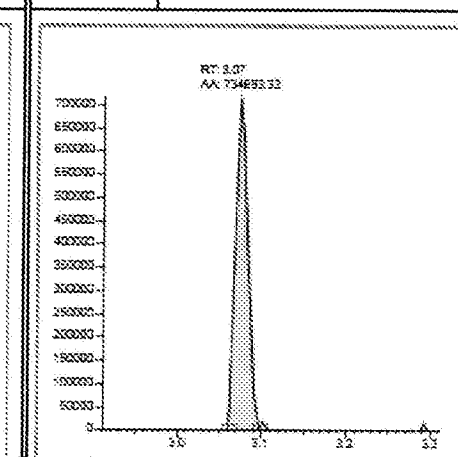
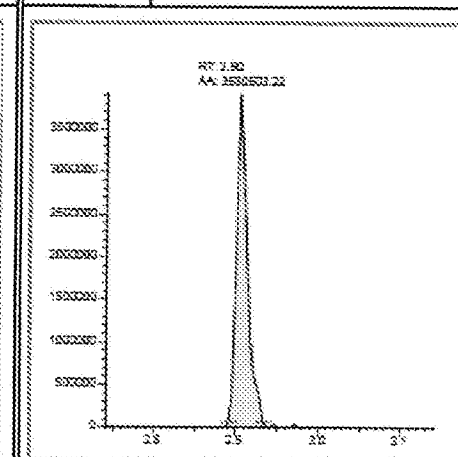
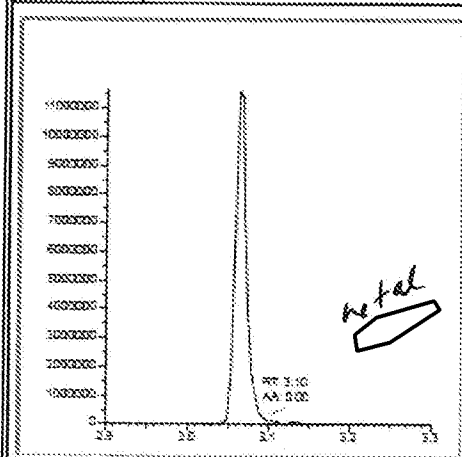
Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	dextromethorphan	+	N/A	N/A (N/A)	272.2009	N/A	N/A	N/A	N/A	
	dextrorphan	+	N/A	N/A (N/A)	258.1852	N/A	N/A	N/A	N/A	
	diphenhydramine	+	N/A	N/A (N/A)	256.1696	N/A	N/A	N/A	N/A	
	doxylamine	+	N/A	N/A (N/A)	271.1805	N/A	N/A	N/A	N/A	
	hydroxyzine	+	N/A	N/A (N/A)	375.1834	N/A	N/A	N/A	N/A	
	norchlorcyclizine	+	N/A	N/A (N/A)	287.1310	N/A	N/A	N/A	N/A	
	pheniramine	+	N/A	N/A (N/A)	241.1699	N/A	N/A	N/A	N/A	
●	tetrahydrozoline	+	2.28E+06	1.89 (0.02)	201.1386	201.1392	0.61	79.00	1 of 4	
	zaleplon	+	N/A	N/A (N/A)	306.1349	N/A	N/A	N/A	N/A	
●	zolpidem	+	1.18E+05	2.35 (0)	308.1757	308.1766	0.90	67.00	1 of 2	
	zopiclone	+	N/A	N/A (N/A)	389.1123	N/A	N/A	N/A	N/A	
	duloxetine	+	N/A	N/A (N/A)	298.1260	N/A	N/A	N/A	N/A	

b7E -2

b6 -1  
b7C -1

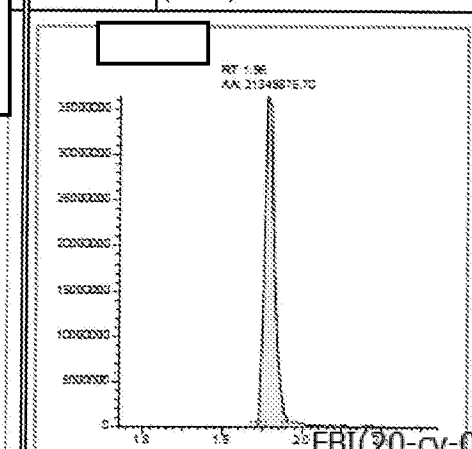
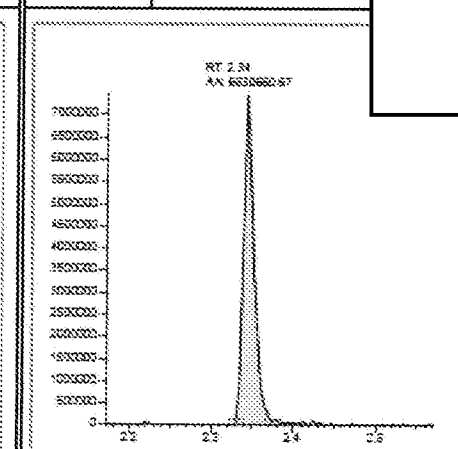
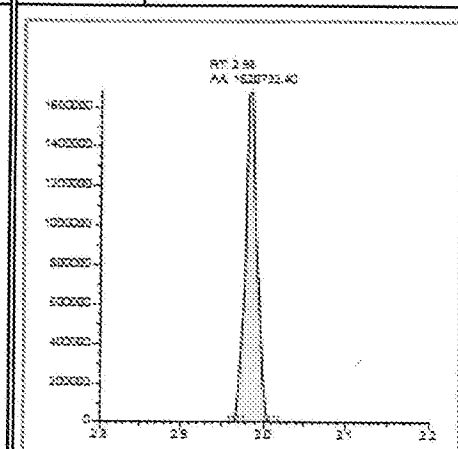
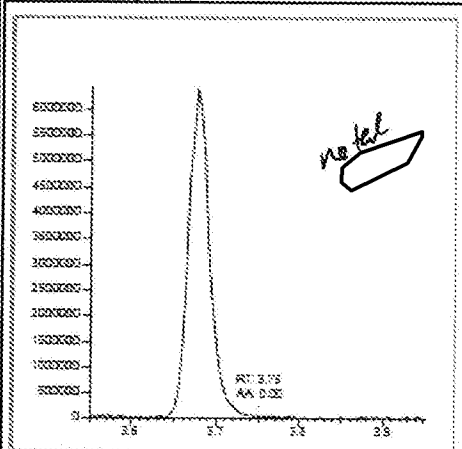
2017-00469 1027-2017

Compound:	<b>d5-alprazolam</b>	Compound:	<b>d5-hydroxalprazolam</b>	Compound:	<b>d4-clonazepam</b>	Compound:	<b>d4-7-aminoclonazepam</b>
RT(exp)	3.1	RT(exp)	2.94	RT(exp)	3.11	RT(exp)	2.07
RT(delta)	N/A (N/A)	RT(delta)	2.9 (-0.04)	RT(delta)	3.07 (-0.04)	RT(delta)	2.03 (-0.04)
Area:	N/A	Area:	3580500	Area:	734690	Area:	1666500
m/z:		m/z:	330.1173	m/z:	320.0742	m/z:	290.1002
delta	(mmu): N/A	delta	(mmu): 0.86	delta	(mmu): 0.74	delta	(mmu): 0.92



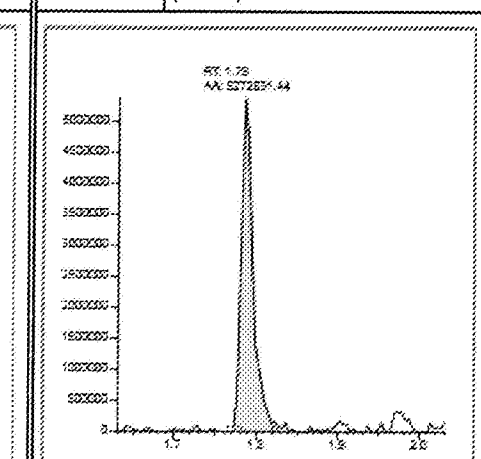
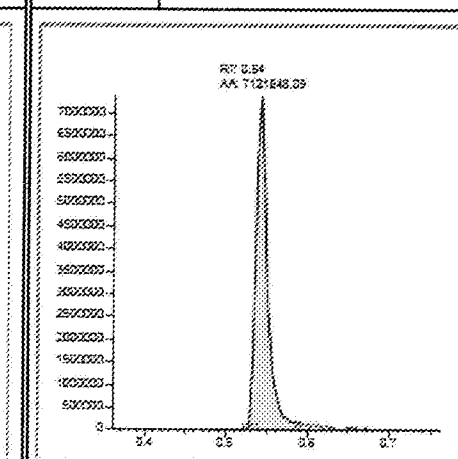
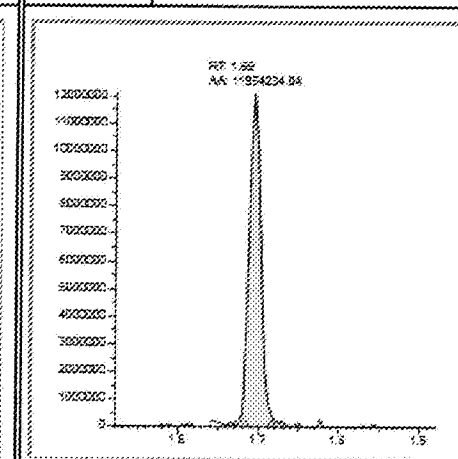
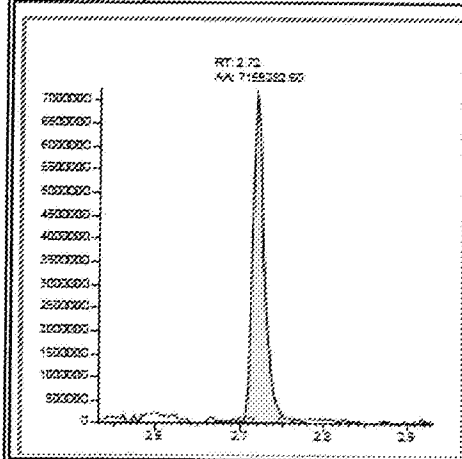
b6 -1  
 b7C -1

Compound:	<b>d5-diazepam</b>	Compound:	<b>d5-oxazepam</b>	Compound:	<b>d6-zolpidem</b>	Compound:	<b>d3-benzoyllecgonine</b>
RT(exp)	3.75	RT(exp)	3	RT(exp)	2.37	RT(exp)	1.97
RT(delta)	N/A (N/A)	RT(delta)	2.98 (-0.02)	RT(delta)	2.34 (-0.03)	RT(delta)	1.96 (-0.01)
Area:	N/A	Area:	1620700	Area:	6630700	Area:	31350000
m/z:		m/z:	292.0902	m/z:	314.2141	m/z:	293.1583
delta	(mmu): N/A	delta	(mmu): 0.64	delta	(mmu): 0.74	delta	(mmu): 0.82

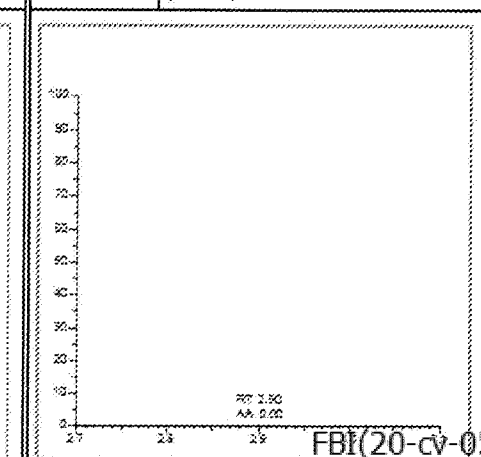
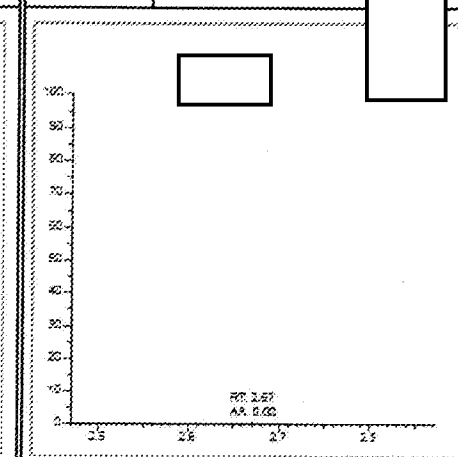
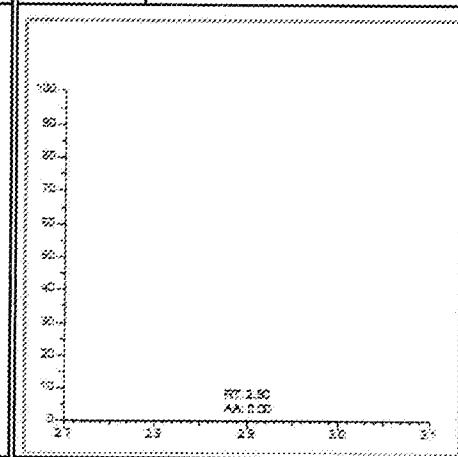
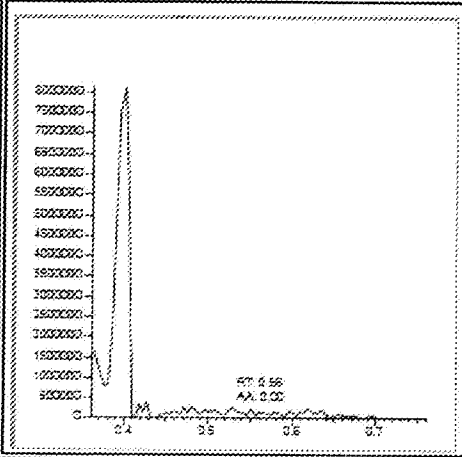


b6 -1  
 b7C -1

Compound:	<b>d3-diphenhydramine</b>	Compound:	<b>d6-oxycodone</b>	Compound:	<b>d3-morphine</b>	Compound:	<b>d3-hydrocodone</b>
RT(exp)	2.73	RT(exp)	1.72	RT(exp)	0.56	RT(exp)	1.83
RT(delta)	2.72 (-0.01)	RT(delta)	1.69 (-0.03)	RT(delta)	0.54 (-0.02)	RT(delta)	1.79 (-0.04)
Area:	7169300	Area:	11954000	Area:	7121800	Area:	5272600
m/z:	259.1893	m/z:	322.1928	m/z:	289.1633	m/z:	303.1786
delta	(mmu): 0.85	delta	(mmu): 0.78	delta	(mmu): 0.73	delta	(mmu): 0.37

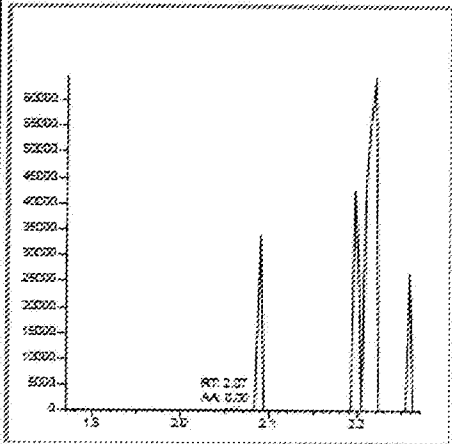
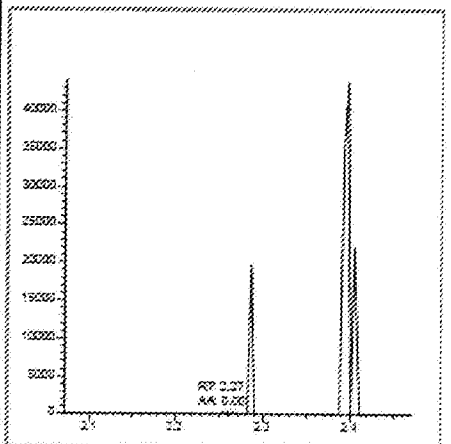
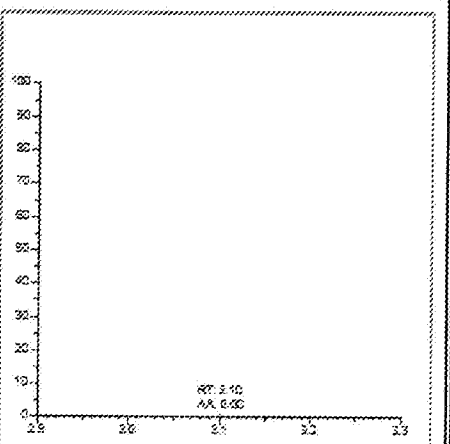
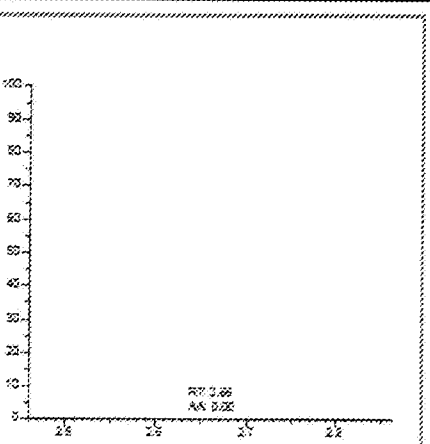


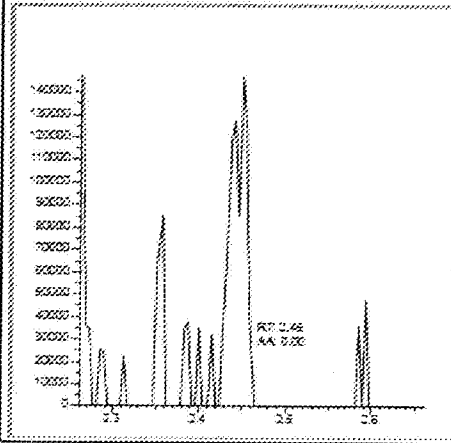
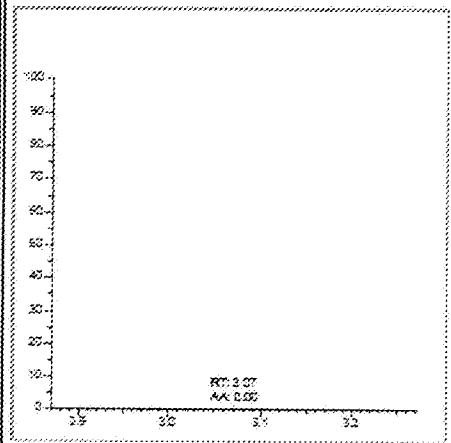
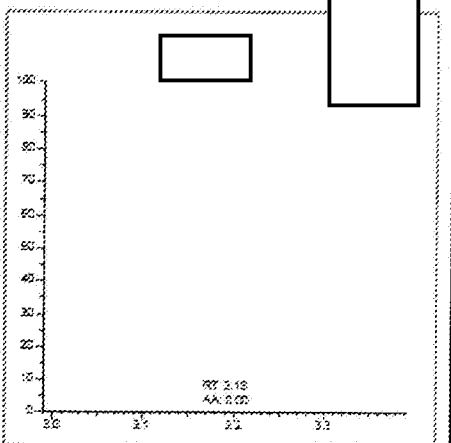
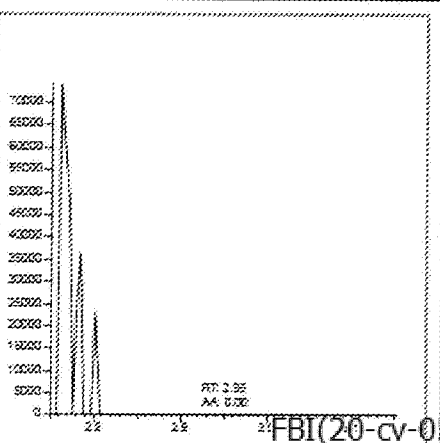
Compound:	<b>morphine</b>	Compound:	<b>hydroxyalprazolam</b>	Compound:	<b>hydroxymidazolam</b>	Compound:	<b>hydroxytriazolam</b>
RT(exp)	0.56	RT(exp)	2.9	RT(exp)	2.67	RT(exp)	2.9
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A



b6 -1  
 b7C -1

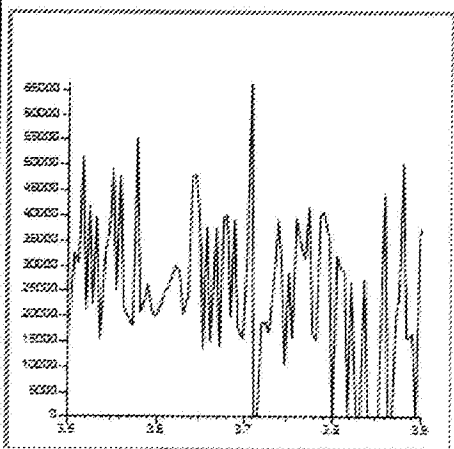
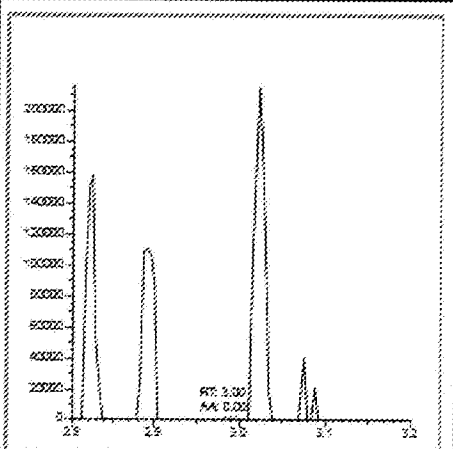
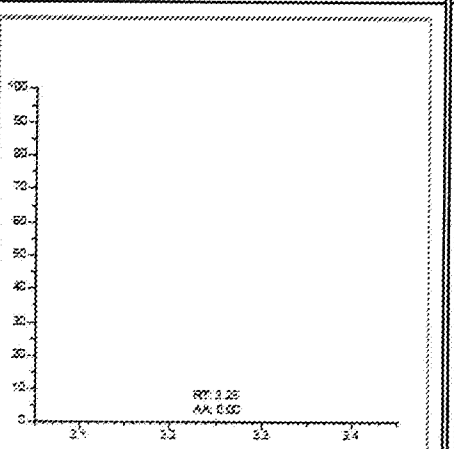
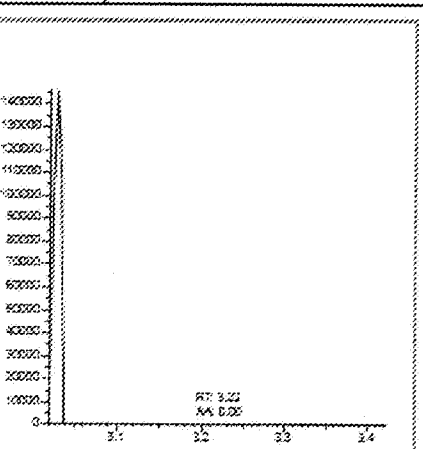
2017-00469 1027-2017

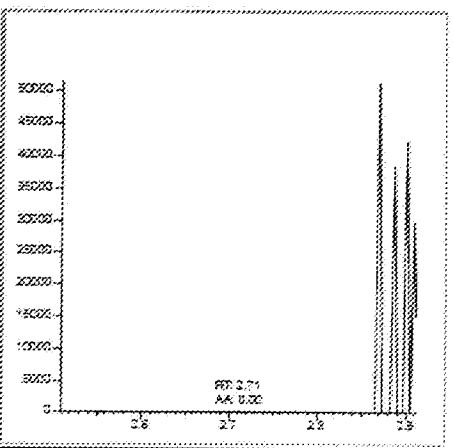
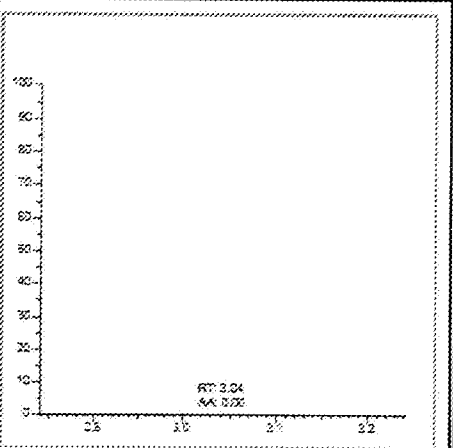
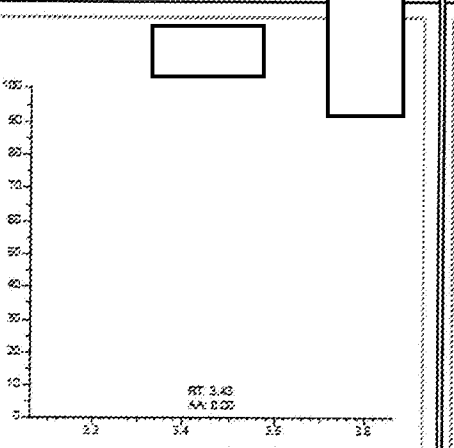
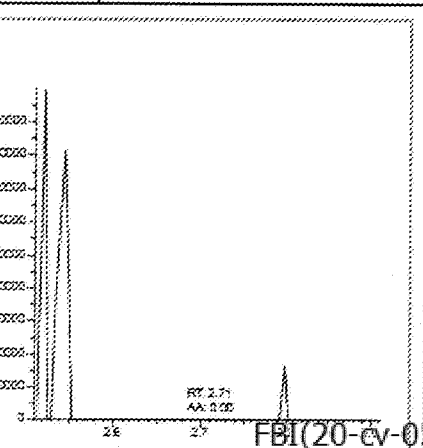
Compound:	<b>7-aminoclonazepam</b>	Compound:	<b>7-aminoflunitrazepam</b>	Compound:	<b>alprazolam</b>	Compound:	<b>bromazepam</b>
RT(exp)	2.07	RT(exp)	2.27	RT(exp)	3.1	RT(exp)	2.66
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>chlordiazepoxide</b>	Compound:	<b>clonazepam</b>	Compound:	<b>desalkylflurazepam</b>	Compound:	<b>desmethylflunitrazepam</b>
RT(exp)	2.46	RT(exp)	3.07	RT(exp)	3.19	RT(exp)	2.95
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

b6 -1  
 b7C -1

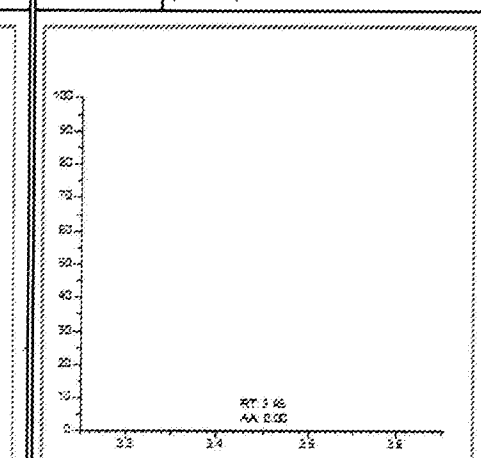
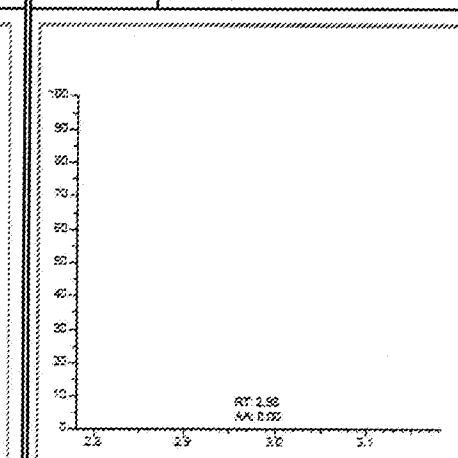
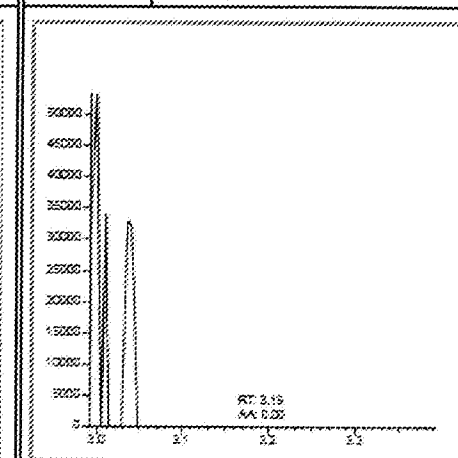
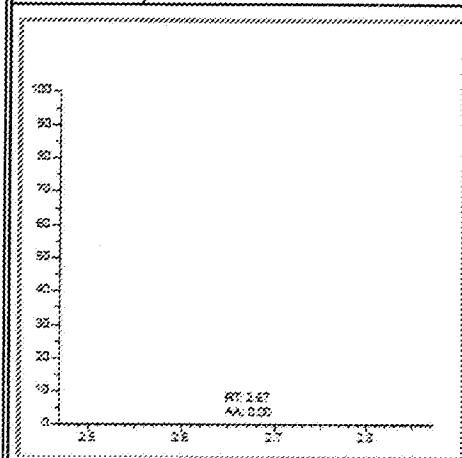
2017-00469 1027-2017

Compound:	diazepam	Compound:	estazolam	Compound:	etizolam	Compound:	flunitrazepam
RT(exp)	3.7	RT(exp)	3	RT(exp)	3.25	RT(exp)	3.22
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

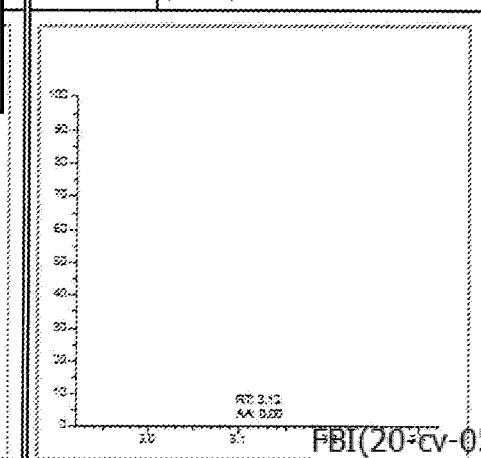
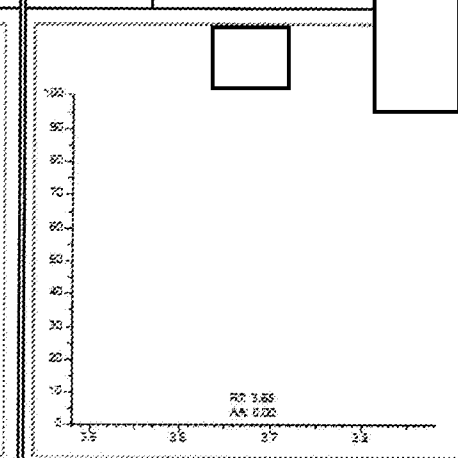
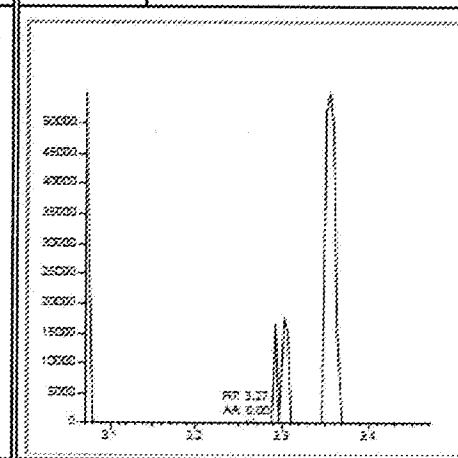
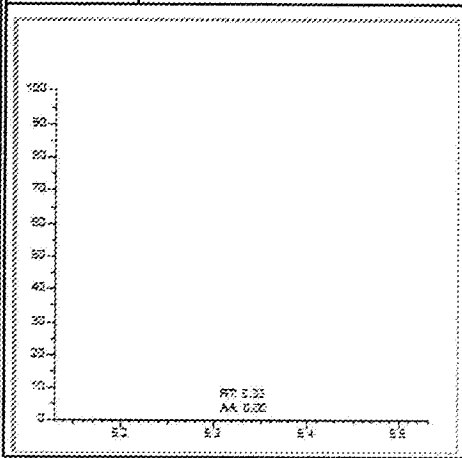
Compound:	flurazepam	Compound:	lorazepam	Compound:	lormetazepam	Compound:	medazepam
RT(exp)	2.71	RT(exp)	3.04	RT(exp)	3.43	RT(exp)	2.71
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

b6 -1  
 b7C -1

Compound:	midazolam	Compound:	nordiazepam	Compound:	oxazepam	Compound:	phenazepam
RT(exp)	2.67	RT(exp)	3.19	RT(exp)	2.98	RT(exp)	3.45
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A

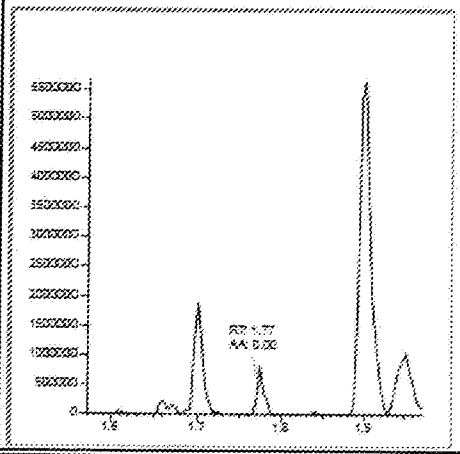
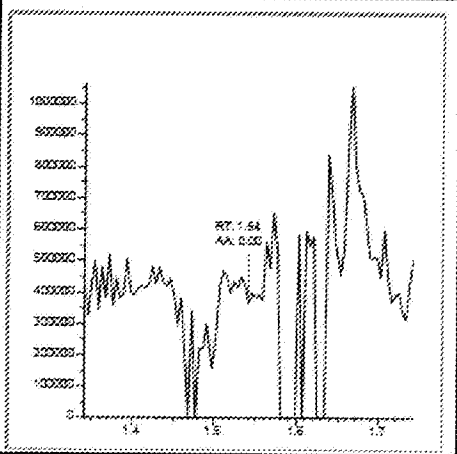
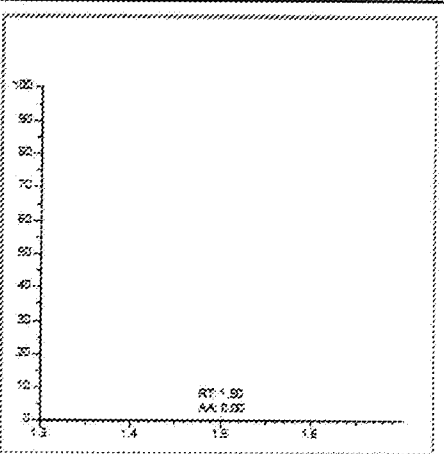
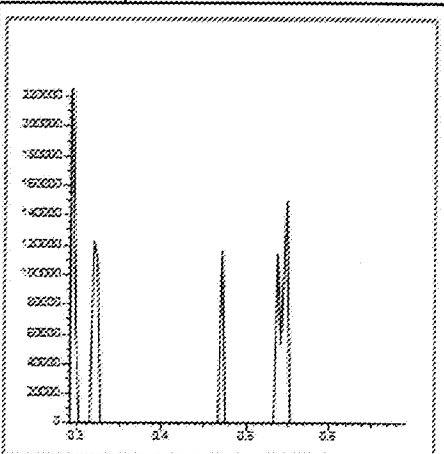
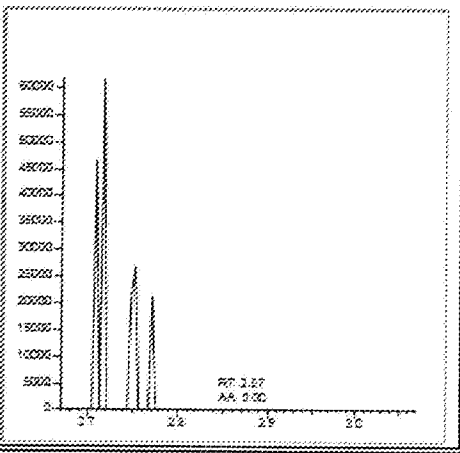
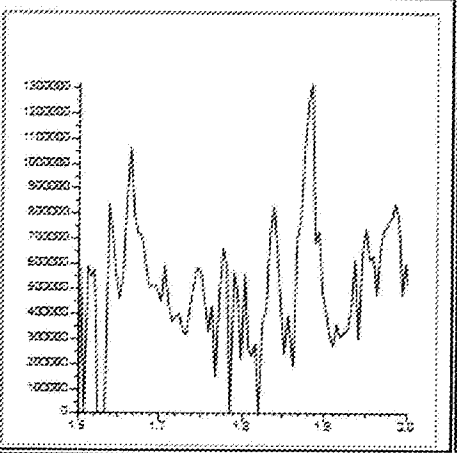
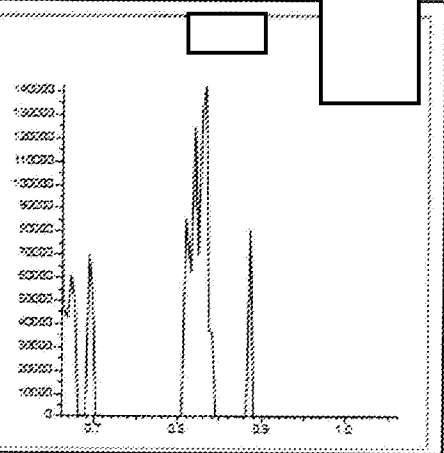
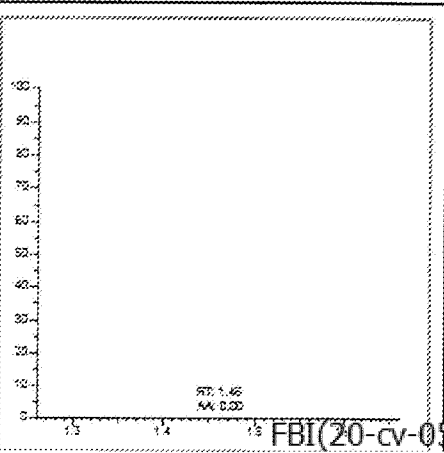


Compound:	prazepam	Compound:	temazepam	Compound:	tetrazepam	Compound:	triazolam
RT(exp)	5.33	RT(exp)	3.27	RT(exp)	3.68	RT(exp)	3.12
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A



b6 -1  
 b7C -1

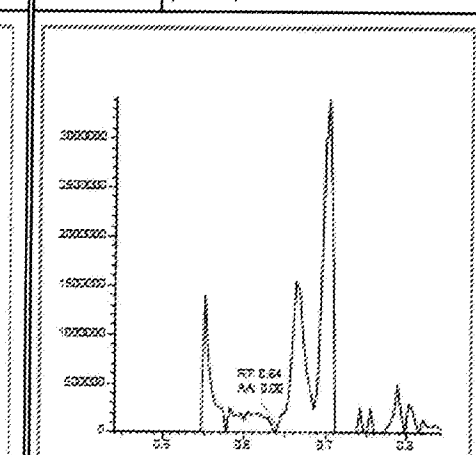
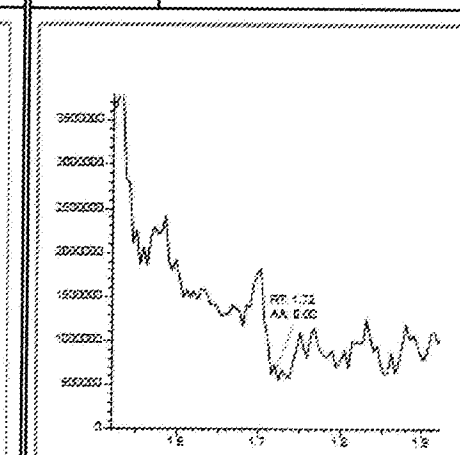
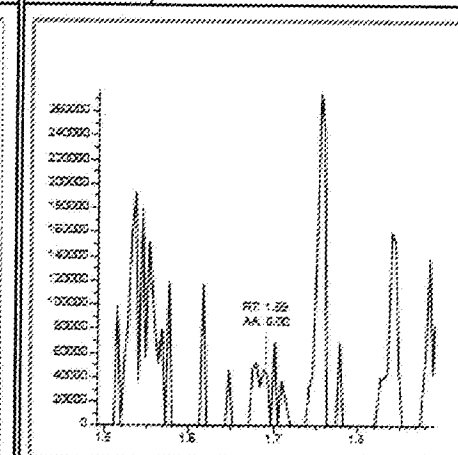
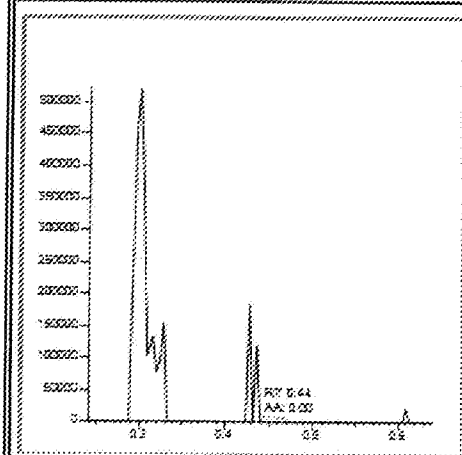
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Compound:	<b>6-acetylmorphine</b>	Compound:	<b>codeine</b>	Compound:	<b>dihydrocodeine</b>	Compound:	<b>dihydromorphone</b>
RT(exp)	1.77	RT(exp)	1.54	RT(exp)	1.5	RT(exp)	0.49
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							
Compound:	<b>EDDP</b>	Compound:	<b>hydrocodone</b>	Compound:	<b>hydromorphone</b>	Compound:	<b>norcodeine</b>
RT(exp)	2.87	RT(exp)	1.8	RT(exp)	0.86	RT(exp)	1.46
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

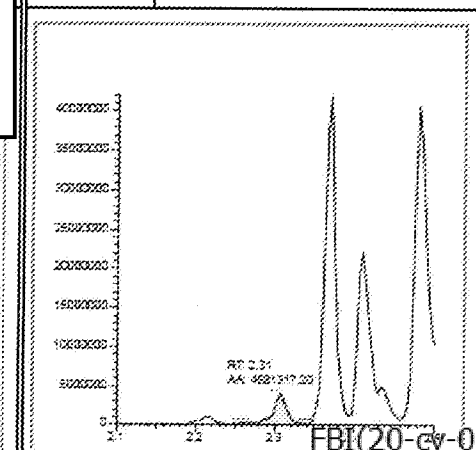
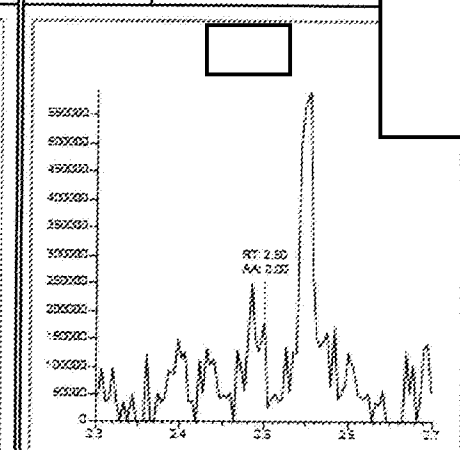
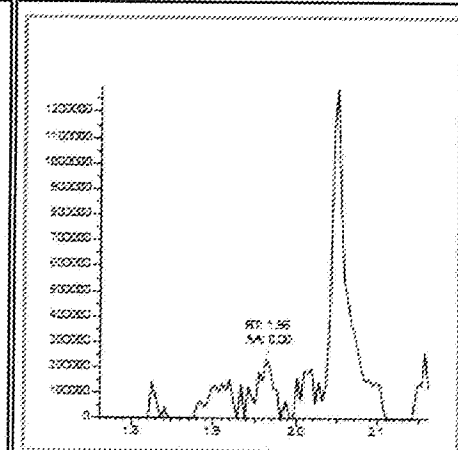
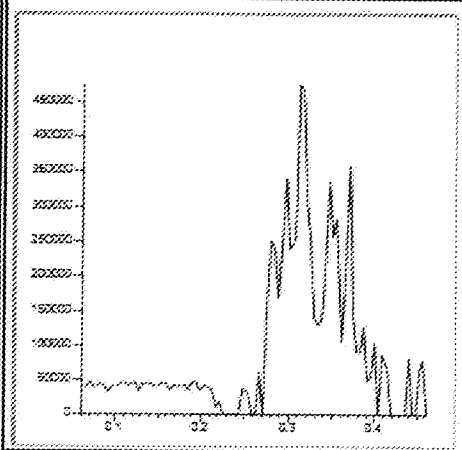
b6 -1  
 b7C -1



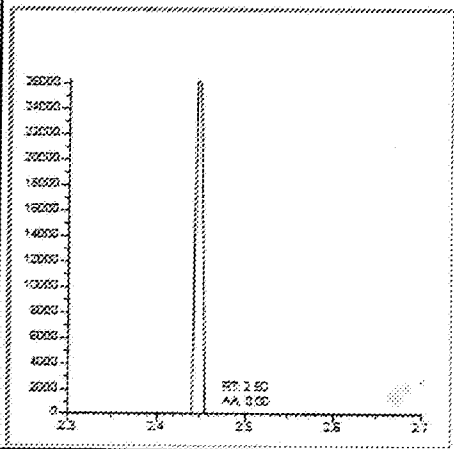
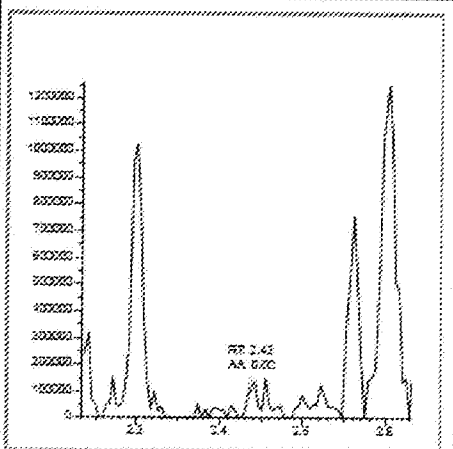
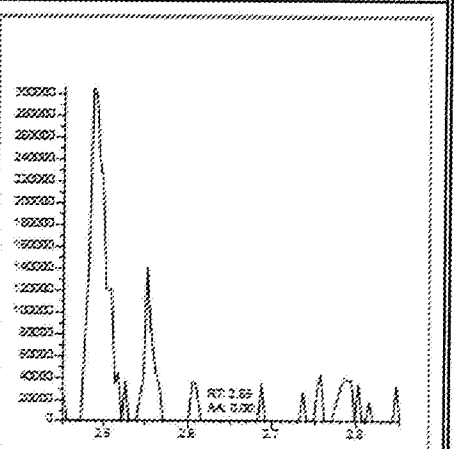
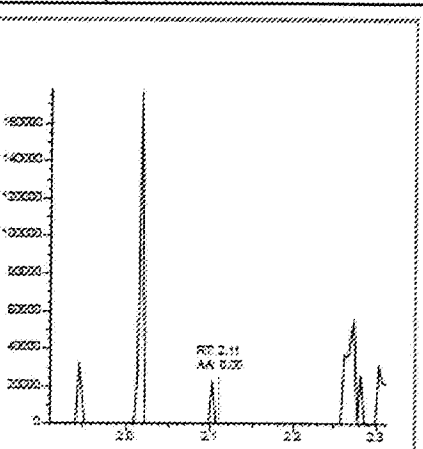
Compound:	<b>normorphine</b>	Compound:	<b>noroxycodone</b>	Compound:	<b>oxycodone</b>	Compound:	<b>oxymorphone</b>
RT(exp)	0.44	RT(exp)	1.69	RT(exp)	1.72	RT(exp)	0.64
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A

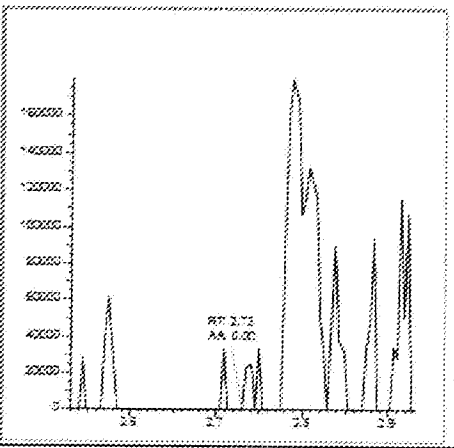
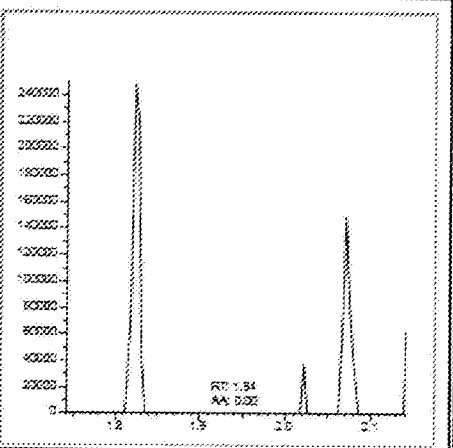
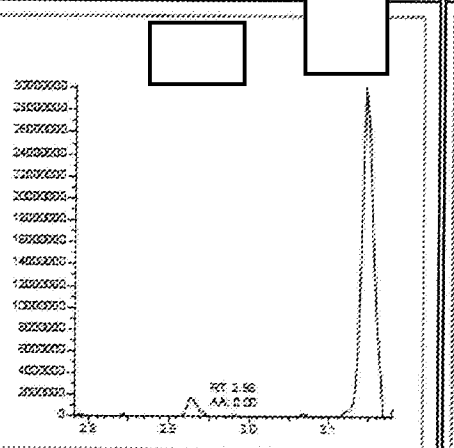
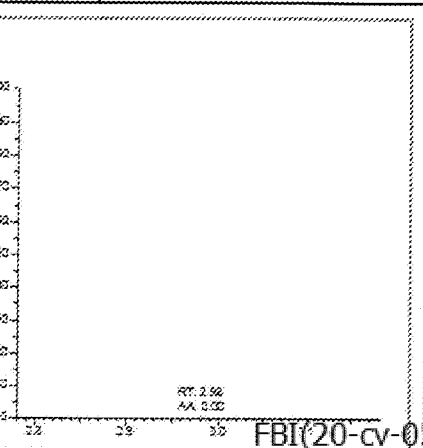


Compound:	<b>ecgonine methyl ester</b>	Compound:	<b>benzoylecgonine</b>	Compound:	<b>cocaethylene</b>	Compound:	<b>cocaine</b>
RT(exp)	0.26	RT(exp)	1.96	RT(exp)	2.5	RT(exp)	2.3
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	2.31 (0.01)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	4681300
m/z:		m/z:		m/z:		m/z:	304.1554
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): 1.03



b6 -1  
 b7C -1

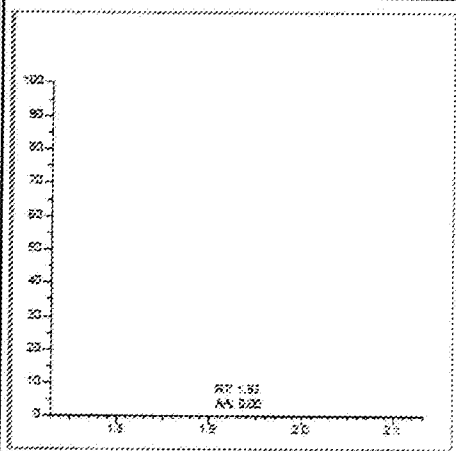
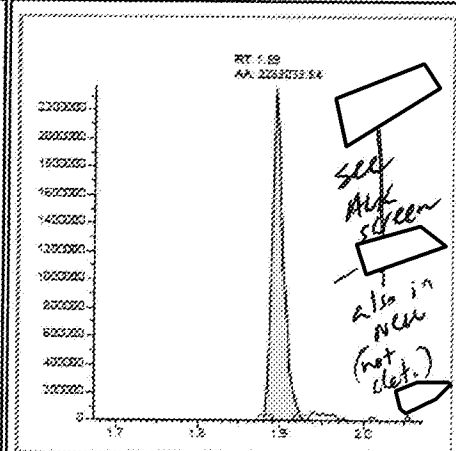
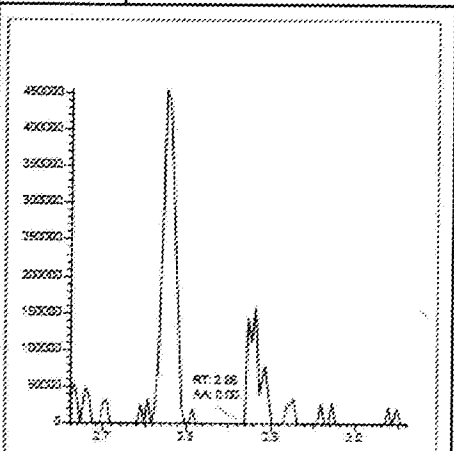
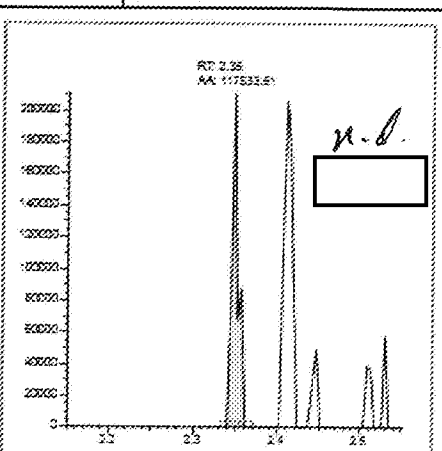
Compound:	<b>brompheniramine</b>	Compound:	<b>chlorpheniramine</b>	Compound:	<b>dextromethorphan</b>	Compound:	<b>dextrorphan</b>
RT(exp)	2.5	RT(exp)	2.43	RT(exp)	2.65	RT(exp)	2.11
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>diphenhydramine</b>	Compound:	<b>doxylamine</b>	Compound:	<b>hydroxyzine</b>	Compound:	<b>norchlorcyclizine</b>
RT(exp)	2.73	RT(exp)	1.94	RT(exp)	2.98	RT(exp)	2.98
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

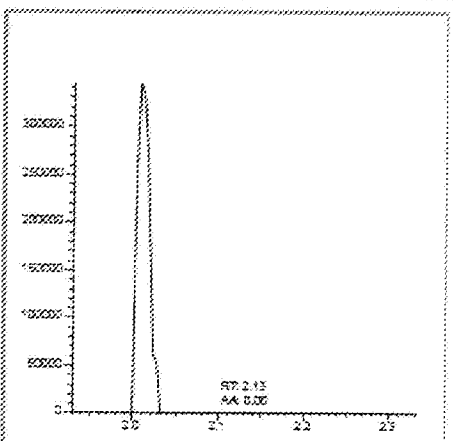
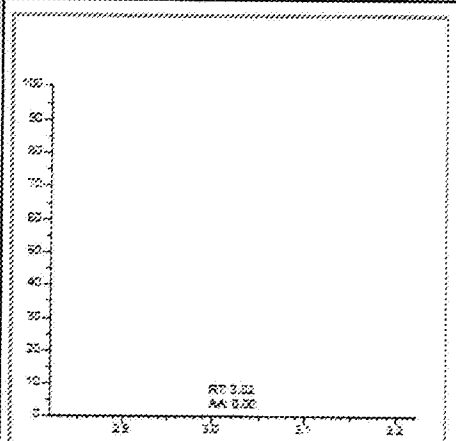
b6 -1  
 b7C -1

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2017-00469, 2, urine

Compound:	pheniramine	Compound:	tetrahydrozoline	Compound:	zaleplon	Compound:	zolpidem
RT(exp)	1.93	RT(exp)	1.87	RT(exp)	2.86	RT(exp)	2.35
RT(delta)	N/A (N/A)	RT(delta)	1.89 (0.02)	RT(delta)	N/A (N/A)	RT(delta)	2.35 (0)
Area:	N/A	Area:	2283000	Area:	N/A	Area:	117530
m/z:		m/z:	201.1392	m/z:		m/z:	308.1766
delta	(mmu): N/A	delta	(mmu): 0.61	delta	(mmu): N/A	delta	(mmu): 0.9
							

b6 -1  
b7C -1

Compound:	zopiclone	Compound:	duloxetine
RT(exp)	2.13	RT(exp)	3.02
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A
m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A
			

b6 -1  
b7C -1

## Exclusionary Screening by UPLC/FTMS

Batch: 20170929  
 Method: ExclusionSOP\_TargetingScreening  
 Inst. Method:  
 Acquired: 9/29/2017 10:39  
 Sample Type: Unknown  
 Vial Position: 2:B.6

Lab Name: FBI Laboratory  
 Assay: Exclusionary Screening TOX 215

Sample: hydrolysis check  
 Comment: \_\_\_\_\_  
 File: 20170929\_05

Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	d5-alprazolam	+	N/A	N/A (N/A)	314.1215	N/A	N/A	N/A	N/A	
●	d5-hydroxalprazolam	+	2.64E+06	2.91 (-0.03)	330.1165	330.1173	0.86	100.00	6 of 6	
●	d4-clonazepam	+	5.27E+05	3.08 (-0.03)	320.0735	320.0743	0.83	100.00	5 of 5	
●	d4-7-aminoclonazepam	+	2.85E+06	2.04 (-0.03)	290.0993	290.1000	0.77	100.00	5 of 6	
	d5-diazepam	+	N/A	N/A (N/A)	290.1103	N/A	N/A	N/A	N/A	
●	d5-oxazepam	+	9.16E+05	2.98 (-0.02)	292.0896	292.0905	0.88	97.00	5 of 6	
●	d6-zolpidem	+	6.22E+06	2.35 (-0.02)	314.2134	314.2140	0.62	100.00	2 of 3	
●	d3-benzoyllecgonine	+	6.51E+07	1.96 (-0.01)	293.1575	293.1581	0.63	100.00	4 of 4	
●	d3-diphenhydramine	+	9.77E+06	2.72 (-0.01)	259.1884	259.1891	0.67	100.00	3 of 4	
●	d6-oxycodone	+	1.60E+07	1.7 (-0.02)	322.1920	322.1928	0.75	100.00	4 of 4	
●	d3-morphine	+	1.23E+07	0.55 (-0.01)	289.1626	289.1630	0.42	100.00	3 of 4	
●	d3-hydrocodone	+	1.57E+07	1.79 (-0.04)	303.1783	303.1790	0.74	100.00	3 of 4	
●	morphine	+	7.51E+07	0.55 (-0.01)	286.1438	286.1445	0.70	100.00	4 of 5	
	hydroxalprazolam	+	N/A	N/A (N/A)	325.0851	N/A	N/A	N/A	N/A	
	hydroxymidazolam	+	N/A	N/A (N/A)	342.0804	N/A	N/A	N/A	N/A	
	hydroxytriazolam	+	N/A	N/A (N/A)	359.0461	N/A	N/A	N/A	N/A	
	7-aminoclonazepam	+	N/A	N/A (N/A)	286.0742	N/A	N/A	N/A	N/A	
	7-aminoflunitrazepam	+	N/A	N/A (N/A)	284.1194	N/A	N/A	N/A	N/A	
	alprazolam	+	N/A	N/A (N/A)	309.0902	N/A	N/A	N/A	N/A	
	bromazepam	+	N/A	N/A (N/A)	316.0080	N/A	N/A	N/A	N/A	
	chlordiazepoxide	+	N/A	N/A (N/A)	300.0898	N/A	N/A	N/A	N/A	
	clonazepam	+	N/A	N/A (N/A)	316.0484	N/A	N/A	N/A	N/A	
	desalkylflurazepam	+	N/A	N/A (N/A)	289.0539	N/A	N/A	N/A	N/A	
	desmethyflunitrazepam	+	N/A	N/A (N/A)	300.0779	N/A	N/A	N/A	N/A	
	diazepam	+	N/A	N/A (N/A)	285.0789	N/A	N/A	N/A	N/A	
	estazolam	+	N/A	N/A (N/A)	295.0745	N/A	N/A	N/A	N/A	
	etizolam	+	N/A	N/A (N/A)	343.0779	N/A	N/A	N/A	N/A	
	flunitrazepam	+	N/A	N/A (N/A)	314.0936	N/A	N/A	N/A	N/A	
	flurazepam	+	N/A	N/A (N/A)	388.1586	N/A	N/A	N/A	N/A	

b7E -2

b6 -1  
 b7C -1

2017-00455 1027-2017

## Exclusionary Screening by UPLC/FTMS

Batch: 20170929  
 Method: ExclusionSOP\_TargetingScreening  
 Inst. Method:  
 Acquired: 9/29/2017 10:39  
 Sample Type: Unknown  
 Vial Position: 2.B.6

Lab Name: FBI Laboratory  
 Assay: Exclusionary Screening TOX 215

Sample: hydrolysis check

Comment: \_\_\_\_\_

File: 20170929\_05

Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	lorazepam	+	N/A	N/A (N/A)	321.0192	N/A		N/A N/A	N/A	
	lormetazepam	+	N/A	N/A (N/A)	335.0349	N/A		N/A N/A	N/A	
	medazepam	+	N/A	N/A (N/A)	271.0997	N/A		N/A N/A	N/A	
	midazolam	+	N/A	N/A (N/A)	326.0855	N/A		N/A N/A	N/A	
	nordiazepam	+	N/A	N/A (N/A)	271.0633	N/A		N/A N/A	N/A	
	oxazepam	+	N/A	N/A (N/A)	287.0582	N/A		N/A N/A	N/A	
	phenazepam	+	N/A	N/A (N/A)	348.9738	N/A		N/A N/A	N/A	
	prazepam	+	N/A	N/A (N/A)	325.1102	N/A		N/A N/A	N/A	
	temazepam	+	N/A	N/A (N/A)	301.0738	N/A		N/A N/A	N/A	
	tetrazepam	+	N/A	N/A (N/A)	289.1102	N/A		N/A N/A	N/A	
	triazolam	+	N/A	N/A (N/A)	343.0512	N/A		N/A N/A	N/A	
	6-acetylmorphine	+	N/A	N/A (N/A)	328.1543	N/A		N/A N/A	N/A	
	codeine	+	N/A	N/A (N/A)	300.1594	N/A		N/A N/A	N/A	
	dihydrocodeine	+	N/A	N/A (N/A)	302.1751	N/A		N/A N/A	N/A	
	dihydromorphone	+	N/A	N/A (N/A)	288.1594	N/A		N/A N/A	N/A	
	EDDP	+	N/A	N/A (N/A)	278.1903	N/A		N/A N/A	N/A	
	hydrocodone	+	N/A	N/A (N/A)	300.1594	N/A		N/A N/A	N/A	
	hydromorphone	+	N/A	N/A (N/A)	286.1438	N/A		N/A N/A	N/A	
	norcodeine	+	N/A	N/A (N/A)	286.1438	N/A		N/A N/A	N/A	
	normorphine	+	N/A	N/A (N/A)	272.1281	N/A		N/A N/A	N/A	
	noroxycodone	+	N/A	N/A (N/A)	302.1387	N/A		N/A N/A	N/A	
	oxycodone	+	N/A	N/A (N/A)	316.1543	N/A		N/A N/A	N/A	
	oxymorphone	+	N/A	N/A (N/A)	302.1387	N/A		N/A N/A	N/A	
	ecgonine methyl ester	+	N/A	N/A (N/A)	200.1281	N/A		N/A N/A	N/A	
	benzoylecgonine	+	N/A	N/A (N/A)	290.1387	N/A		N/A N/A	N/A	
	cocaethylene	+	N/A	N/A (N/A)	318.1700	N/A		N/A N/A	N/A	
	cocaine	+	N/A	N/A (N/A)	304.1543	N/A		N/A N/A	N/A	
	brompheniramine	+	N/A	N/A (N/A)	319.0804	N/A		N/A N/A	N/A	
	chlorpheniramine	+	N/A	N/A (N/A)	275.1310	N/A		N/A N/A	N/A	

b7E -2

b6 -1  
b7C -1

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## Exclusionary Screening by UPLC/FTMS

Batch: 20170929  
 Method: ExclusionSOP\_TargetingScreening  
 Inst. Method:  
 Acquired: 9/29/2017 10:39  
 Sample Type: Unknown  
 Vial Position: 2:B.6

Lab Name: FBI Laboratory  
 Assay: Exclusionary Screening TOX 215

Sample: hydrolysis check  
 Comment: \_\_\_\_\_  
 File: 20170929\_05

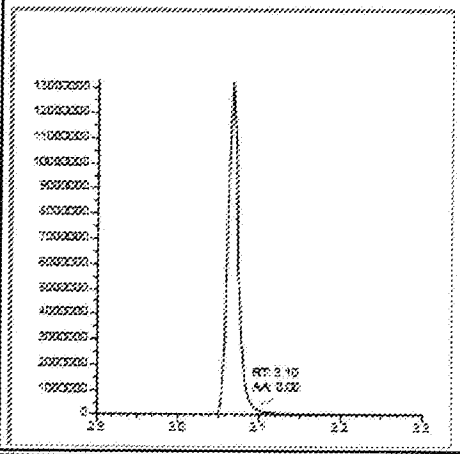
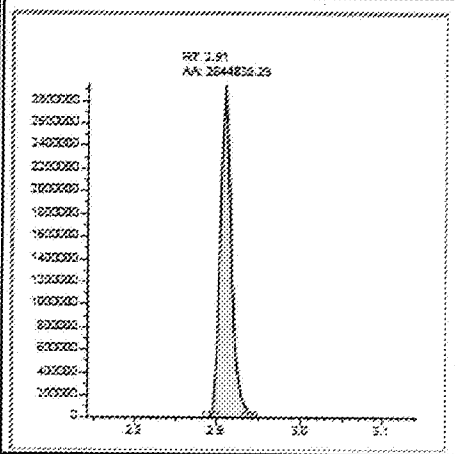
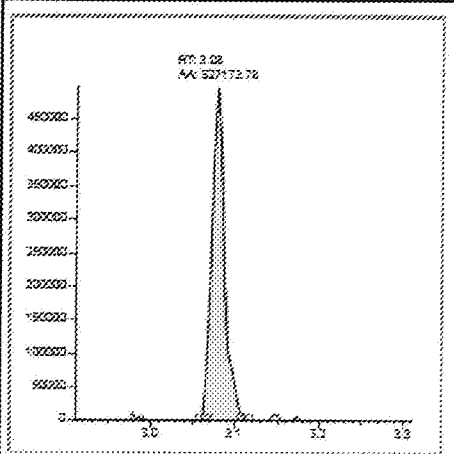
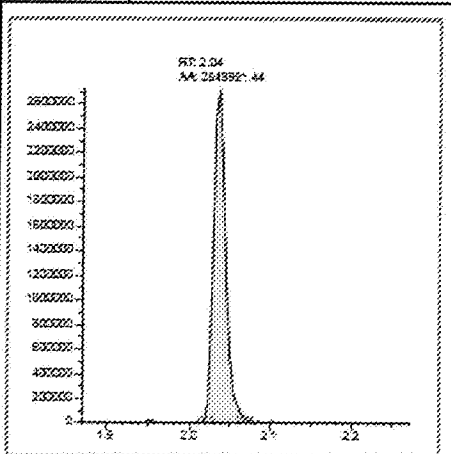
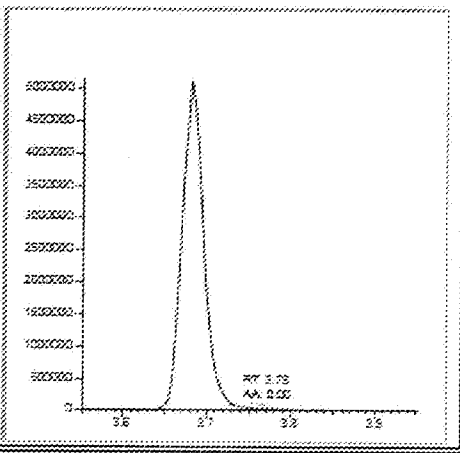
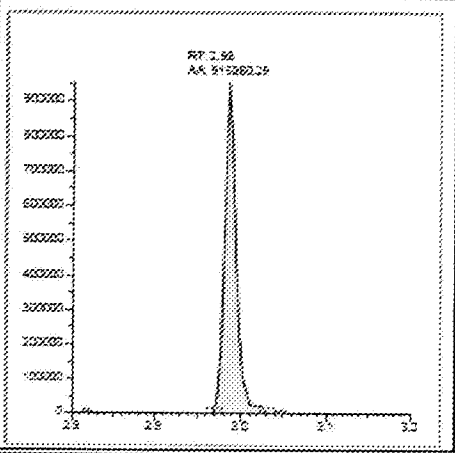
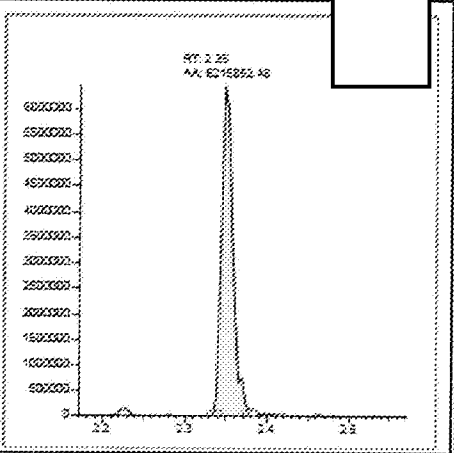
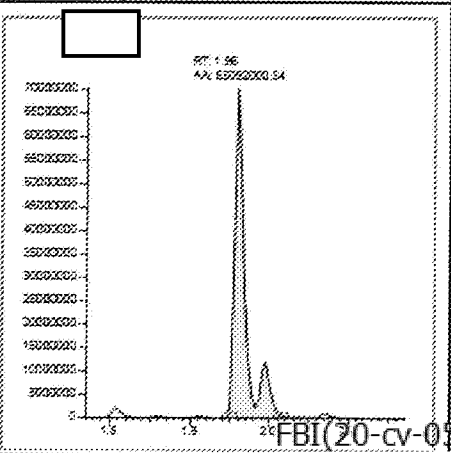
Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	dextromethorphan	+	N/A	N/A (N/A)	272.2009	N/A	N/A	N/A	N/A	
	dextrorphan	+	N/A	N/A (N/A)	258.1852	N/A	N/A	N/A	N/A	
	diphenhydramine	+	N/A	N/A (N/A)	256.1696	N/A	N/A	N/A	N/A	
	doxylamine	+	N/A	N/A (N/A)	271.1805	N/A	N/A	N/A	N/A	
	hydroxyzine	+	N/A	N/A (N/A)	375.1834	N/A	N/A	N/A	N/A	
	norchlorcyclizine	+	N/A	N/A (N/A)	287.1310	N/A	N/A	N/A	N/A	
	pheniramine	+	N/A	N/A (N/A)	241.1699	N/A	N/A	N/A	N/A	
●	tetrahydrozoline	+	1.31E+06	1.9 (0.03)	201.1386	201.1393	0.65	84.00	2 of 4	✓ note [redacted]
	zaleplon	+	N/A	N/A (N/A)	306.1349	N/A	N/A	N/A	N/A	
	zolpidem	+	N/A	N/A (N/A)	308.1757	N/A	N/A	N/A	N/A	
	zopiclone	+	N/A	N/A (N/A)	389.1123	N/A	N/A	N/A	N/A	
	duloxetine	+	N/A	N/A (N/A)	298.1260	N/A	N/A	N/A	N/A	

b7E -2

b6 -1  
 b7C -1

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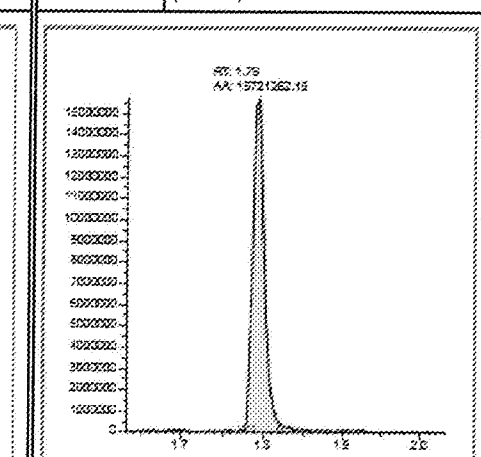
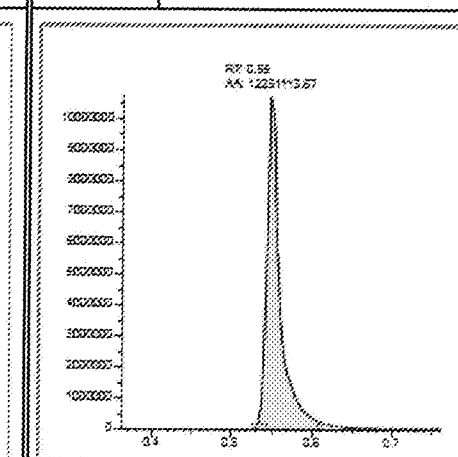
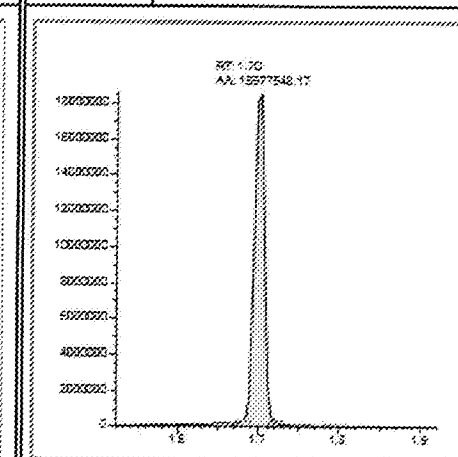
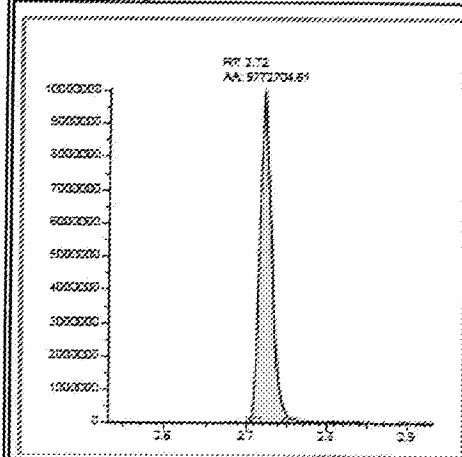
hydrolysis check

Compound:	<b>d5-alprazolam</b>	Compound:	<b>d5-hydroxalprazolam</b>	Compound:	<b>d4-clonazepam</b>	Compound:	<b>d4-7-aminoclonazepam</b>
RT(exp)	3.1	RT(exp)	2.94	RT(exp)	3.11	RT(exp)	2.07
RT(delta)	N/A (N/A)	RT(delta)	2.91 (-0.03)	RT(delta)	3.08 (-0.03)	RT(delta)	2.04 (-0.03)
Area:	N/A	Area:	2644800	Area:	527170	Area:	2850000
m/z:		m/z:	330.1173	m/z:	320.0743	m/z:	290.1000
delta	(mmu): N/A	delta	(mmu): 0.86	delta	(mmu): 0.83	delta	(mmu): 0.77
							
Compound:	<b>d5-diazepam</b>	Compound:	<b>d5-oxazepam</b>	Compound:	<b>d6-zolpidem</b>	Compound:	<b>d3-benzoyllecgonine</b>
RT(exp)	3.75	RT(exp)	3	RT(exp)	2.37	RT(exp)	1.97
RT(delta)	N/A (N/A)	RT(delta)	2.98 (-0.02)	RT(delta)	2.35 (-0.02)	RT(delta)	1.96 (-0.01)
Area:	N/A	Area:	915860	Area:	6215900	Area:	65092000
m/z:		m/z:	292.0905	m/z:	314.2140	m/z:	293.1581
delta	(mmu): N/A	delta	(mmu): 0.88	delta	(mmu): 0.62	delta	(mmu): 0.63
							

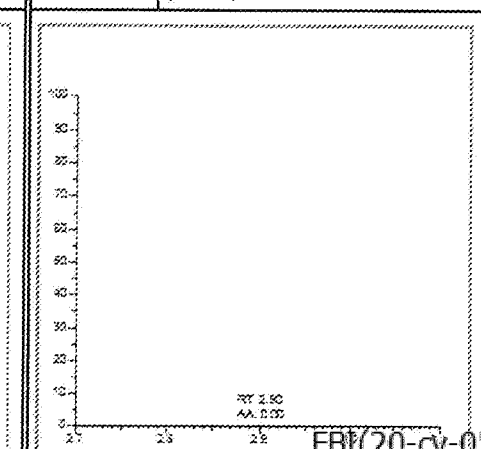
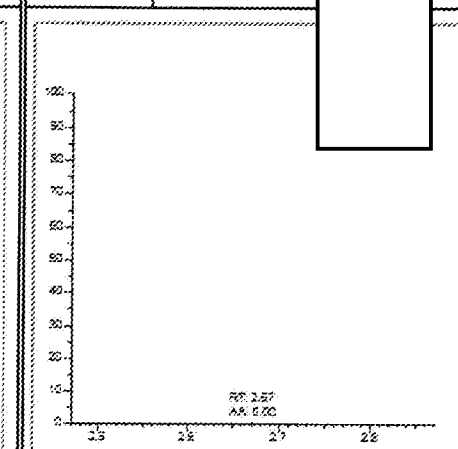
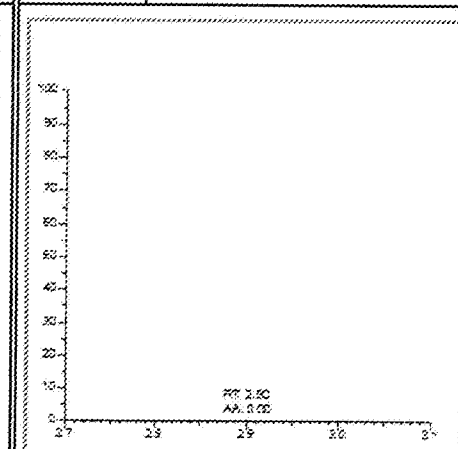
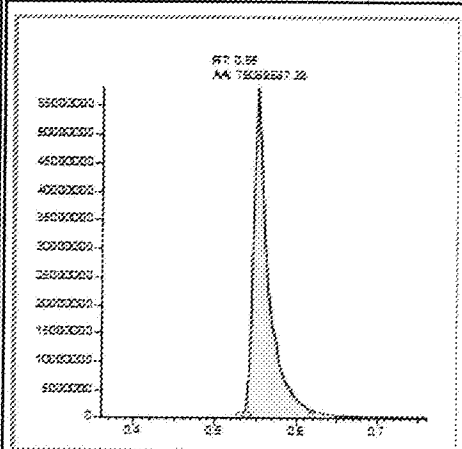
b6 -1  
b7C -1

hydrolysis check

Compound:	<b>d3-diphenhydramine</b>	Compound:	<b>d6-oxycodone</b>	Compound:	<b>d3-morphine</b>	Compound:	<b>d3-hydrocodone</b>
RT(exp)	2.73	RT(exp)	1.72	RT(exp)	0.56	RT(exp)	1.83
RT(delta)	2.72 (-0.01)	RT(delta)	1.7 (-0.02)	RT(delta)	0.55 (-0.01)	RT(delta)	1.79 (-0.04)
Area:	9772700	Area:	15978000	Area:	12251000	Area:	15721000
m/z:	259.1891	m/z:	322.1928	m/z:	289.1630	m/z:	303.1790
delta	(mmu): 0.67	delta	(mmu): 0.75	delta	(mmu): 0.42	delta	(mmu): 0.74



Compound:	<b>morphine</b>	Compound:	<b>hydroxyalprazolam</b>	Compound:	<b>hydroxymidazolam</b>	Compound:	<b>hydroxytriazolam</b>
RT(exp)	0.56	RT(exp)	2.9	RT(exp)	2.67	RT(exp)	2.9
RT(delta)	0.55 (-0.01)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	75059000	Area:	N/A	Area:	N/A	Area:	N/A
m/z:	286.1445	m/z:		m/z:		m/z:	
delta	(mmu): 0.7	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A

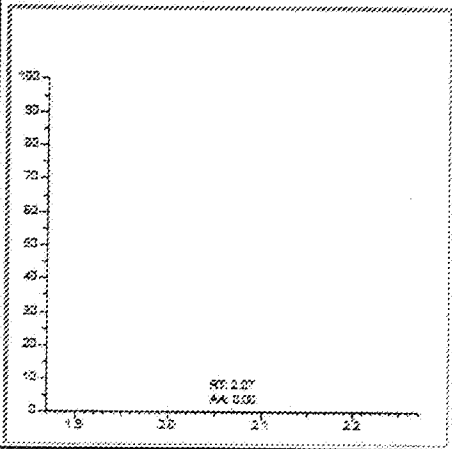
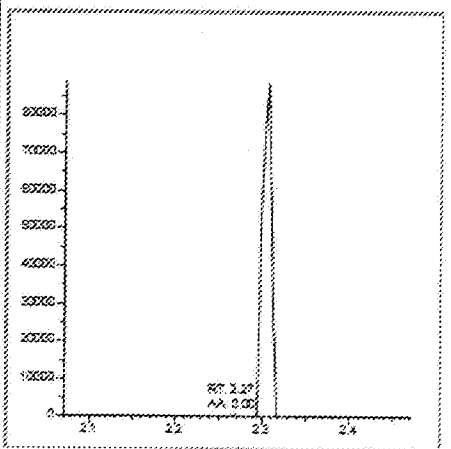
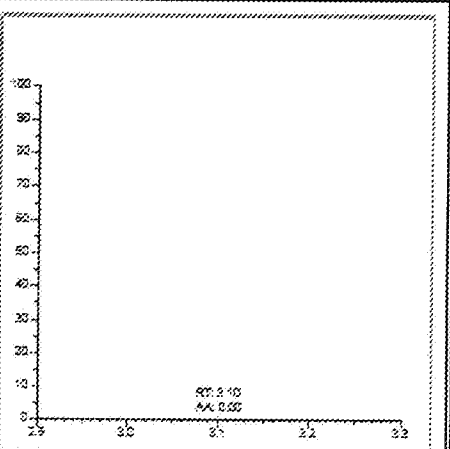
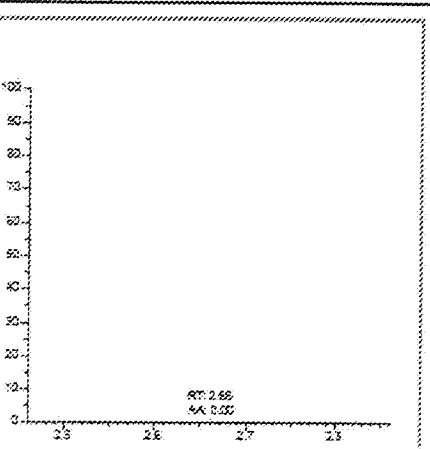


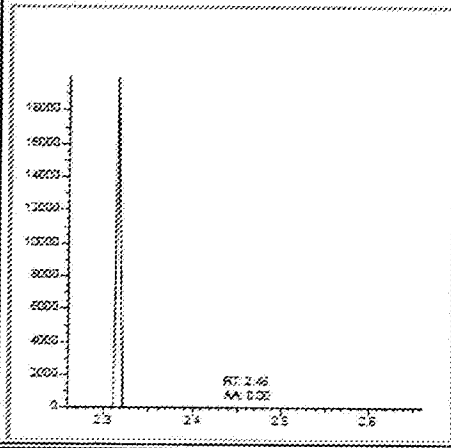
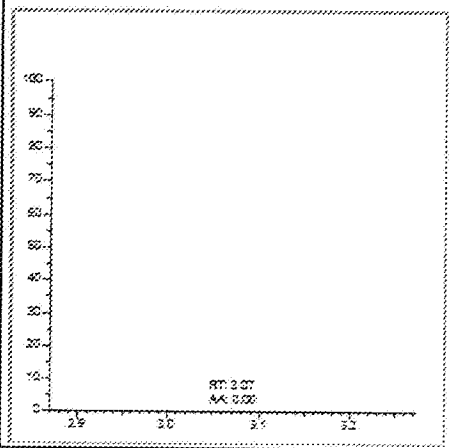
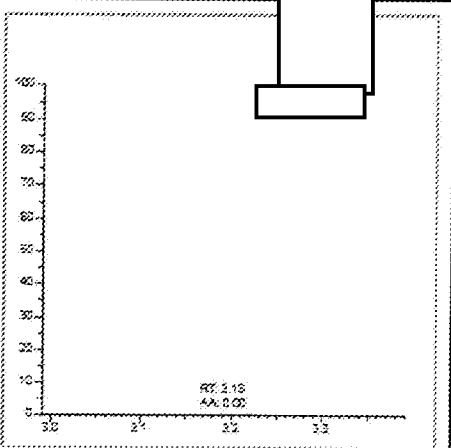
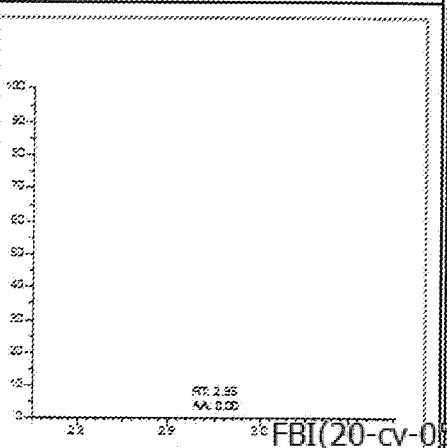
b6 -1  
b7C -1

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hydrolysis check

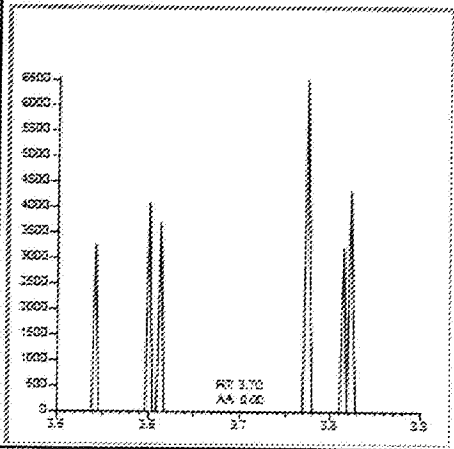
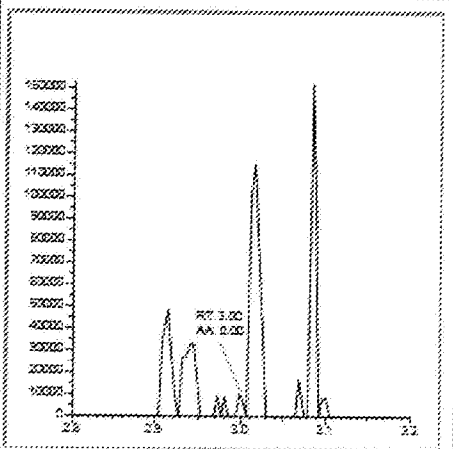
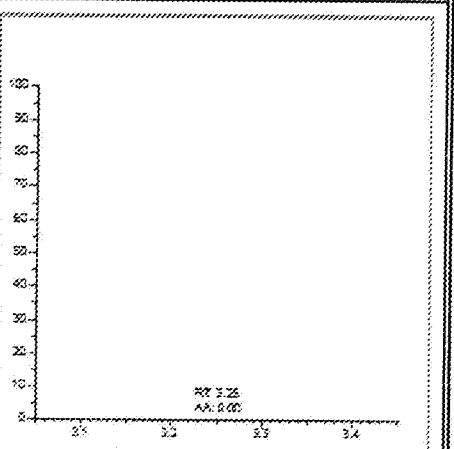
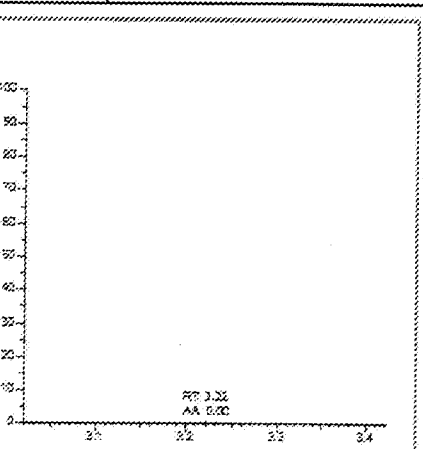
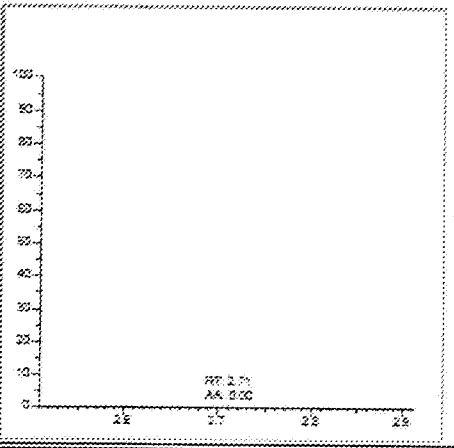
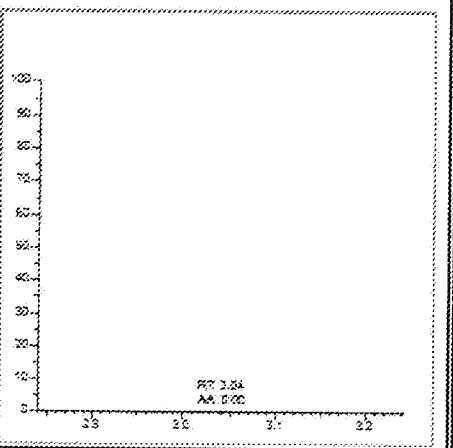
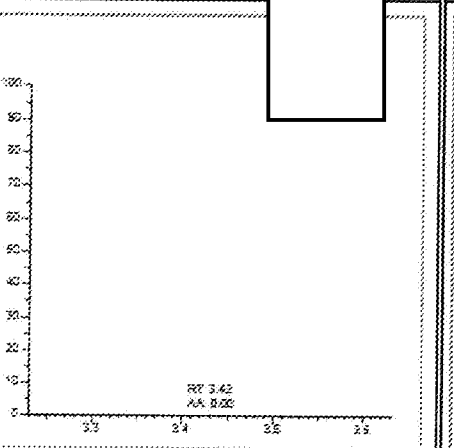
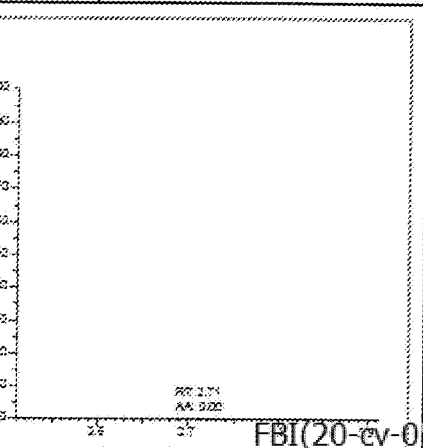
Compound:	<b>7-aminoclonazepam</b>	Compound:	<b>7-aminoflunitrazepam</b>	Compound:	<b>alprazolam</b>	Compound:	<b>bromazepam</b>
RT(exp)	2.07	RT(exp)	2.27	RT(exp)	3.1	RT(exp)	2.66
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>chlordiazepoxide</b>	Compound:	<b>clonazepam</b>	Compound:	<b>desalkylflurazepam</b>	Compound:	<b>desmethylflunitrazepam</b>
RT(exp)	2.46	RT(exp)	3.07	RT(exp)	3.19	RT(exp)	2.95
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

b6 -1  
 b7C -1

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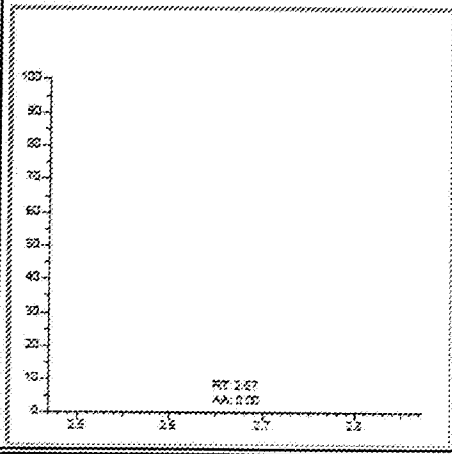
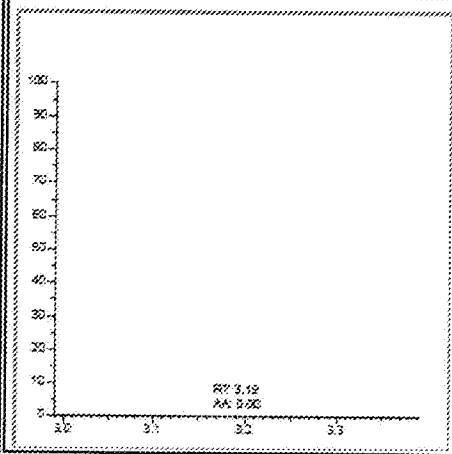
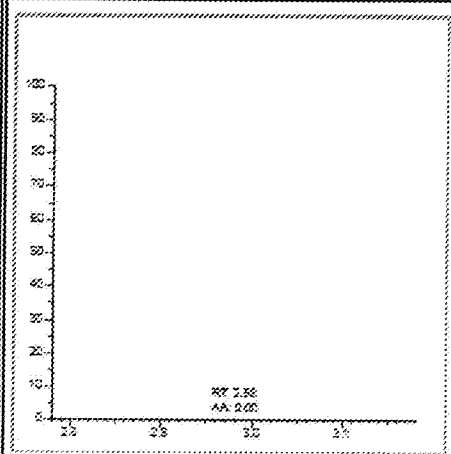
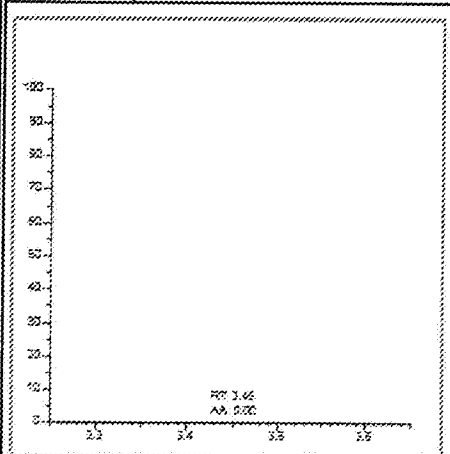
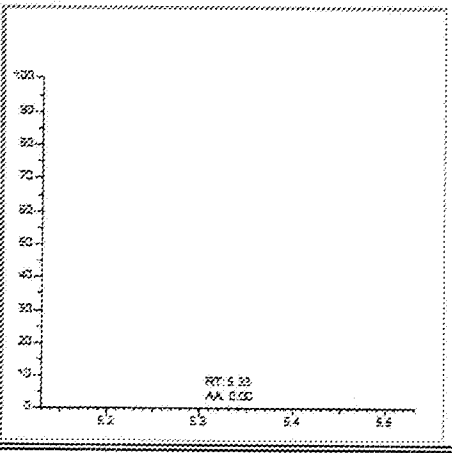
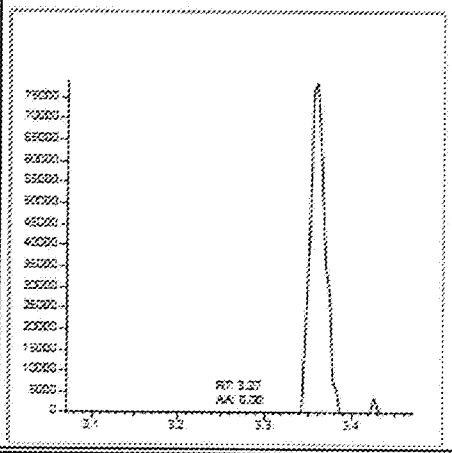
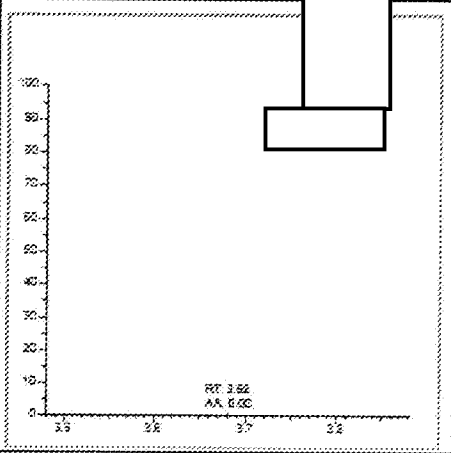
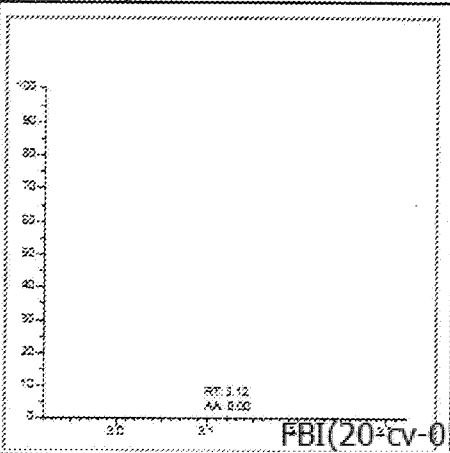
hydrolysis check

Compound: <b>diazepam</b>	Compound: <b>estazolam</b>	Compound: <b>etizolam</b>	Compound: <b>flunitrazepam</b>
RT(exp) 3.7	RT(exp) 3	RT(exp) 3.25	RT(exp) 3.22
RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)
Area: N/A	Area: N/A	Area: N/A	Area: N/A
m/z:	m/z:	m/z:	m/z:
delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A
			
Compound: <b>flurazepam</b>	Compound: <b>lorazepam</b>	Compound: <b>lormetazepam</b>	Compound: <b>medazepam</b>
RT(exp) 2.71	RT(exp) 3.04	RT(exp) 3.43	RT(exp) 2.71
RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)
Area: N/A	Area: N/A	Area: N/A	Area: N/A
m/z:	m/z:	m/z:	m/z:
delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A
			

b6 -1  
b7C -1

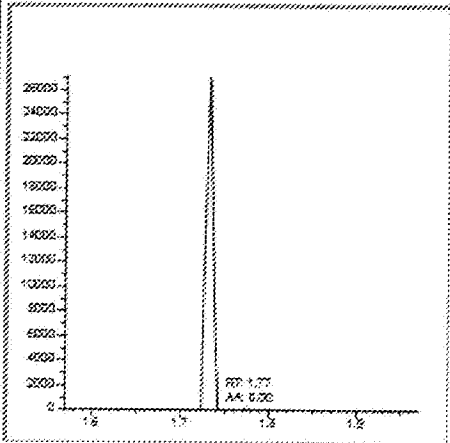
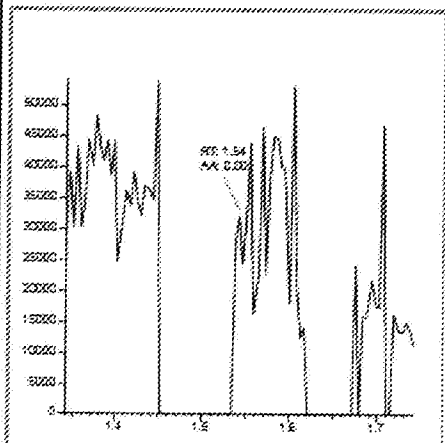
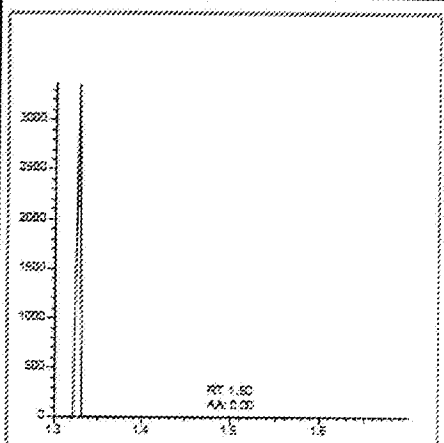
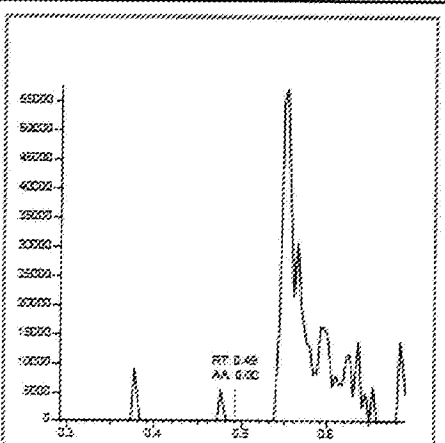
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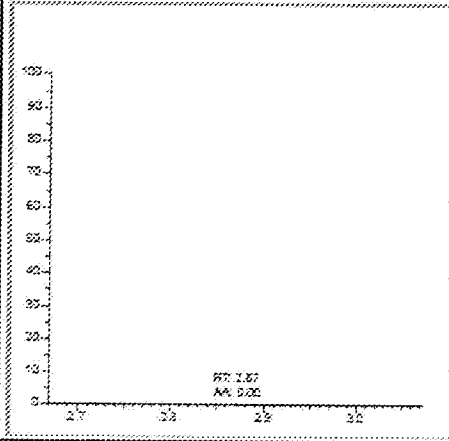
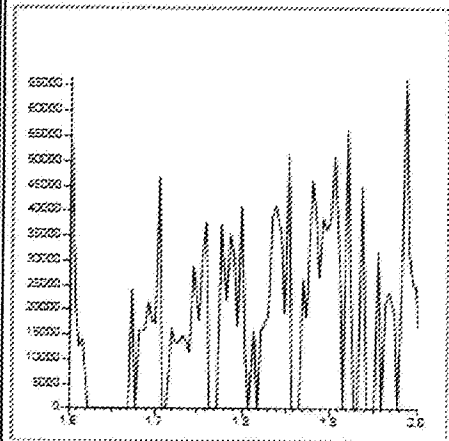
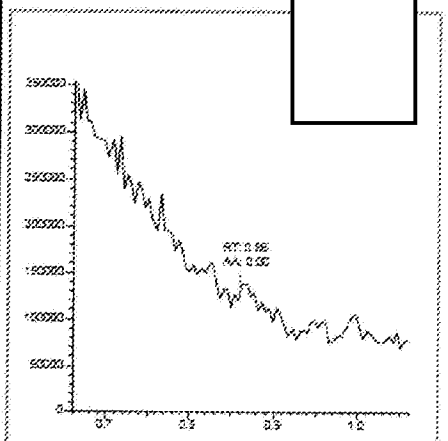
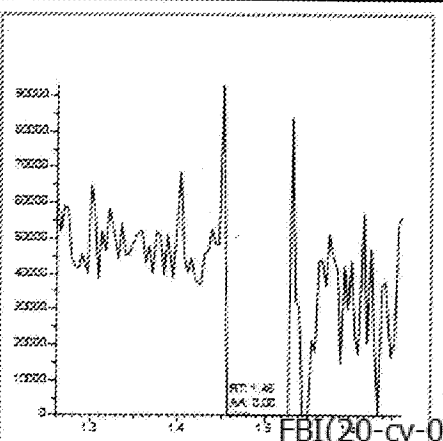
hydrolysis check

Compound: <b>midazolam</b>	Compound: <b>nordiazepam</b>	Compound: <b>oxazepam</b>	Compound: <b>phenazepam</b>
RT(exp) 2.67	RT(exp) 3.19	RT(exp) 2.98	RT(exp) 3.45
RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)
Area: N/A	Area: N/A	Area: N/A	Area: N/A
m/z:	m/z:	m/z:	m/z:
delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A
			
Compound: <b>prazepam</b>	Compound: <b>temazepam</b>	Compound: <b>tetrazepam</b>	Compound: <b>triazolam</b>
RT(exp) 5.33	RT(exp) 3.27	RT(exp) 3.68	RT(exp) 3.12
RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)
Area: N/A	Area: N/A	Area: N/A	Area: N/A
m/z:	m/z:	m/z:	m/z:
delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A
			

b6 -1  
 b7C -1

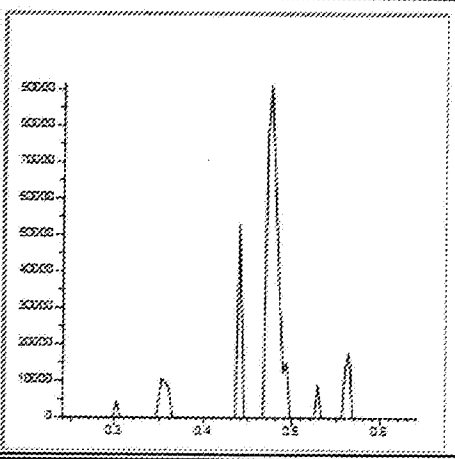
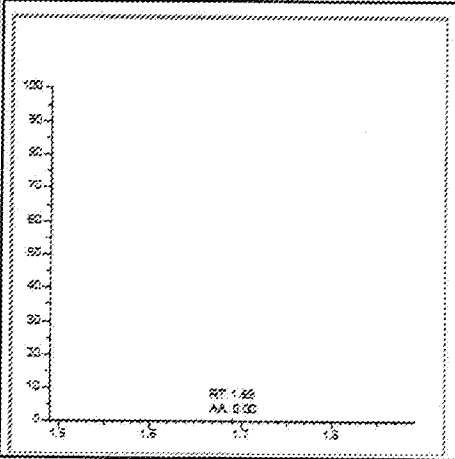
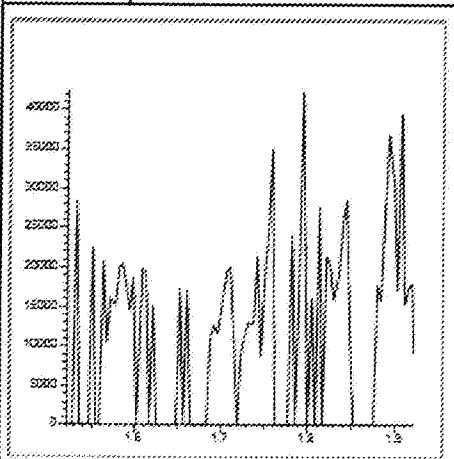
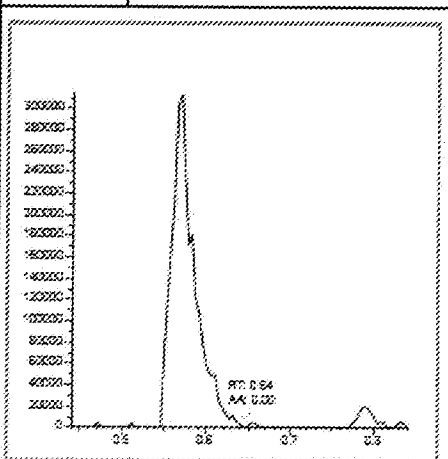
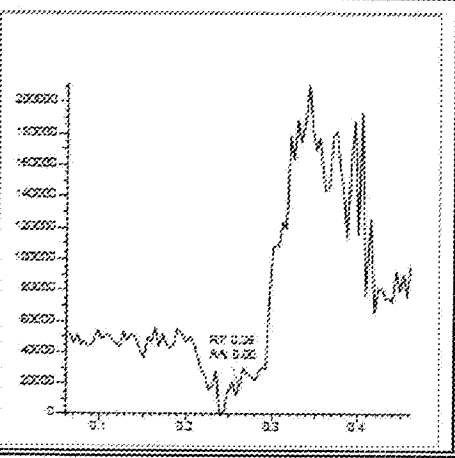
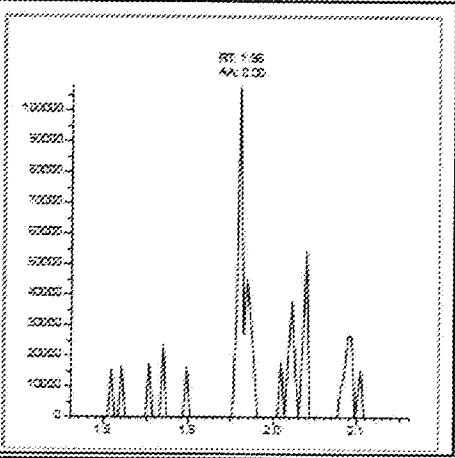
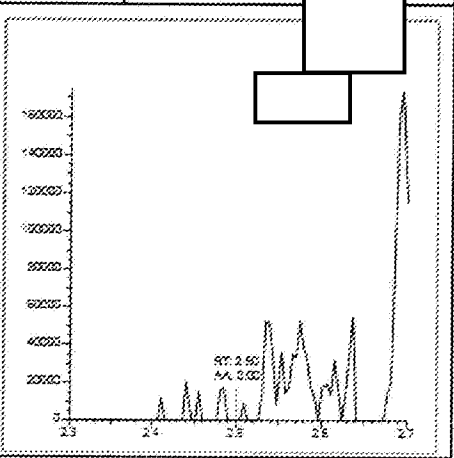
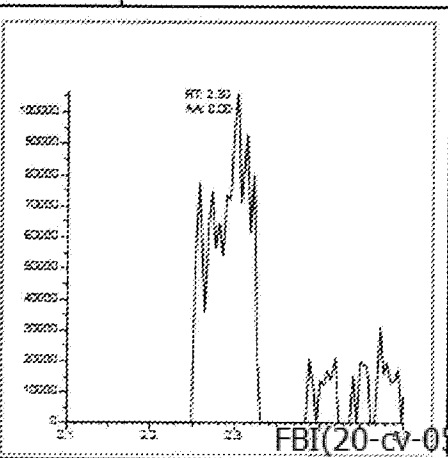
hydrolysis check

Compound:	<b>6-acetylmorphine</b>	Compound:	<b>codeine</b>	Compound:	<b>dihydrocodeine</b>	Compound:	<b>dihydromorphine</b>
RT(exp)	1.77	RT(exp)	1.54	RT(exp)	1.5	RT(exp)	0.49
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>EDDP</b>	Compound:	<b>hydrocodone</b>	Compound:	<b>hydromorphone</b>	Compound:	<b>norcodeine</b>
RT(exp)	2.87	RT(exp)	1.8	RT(exp)	0.86	RT(exp)	1.46
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

b6 -1  
 b7C -1

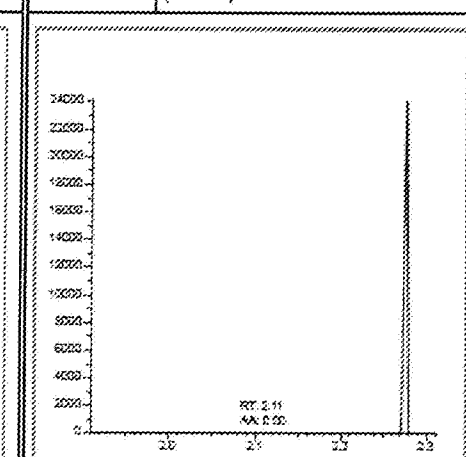
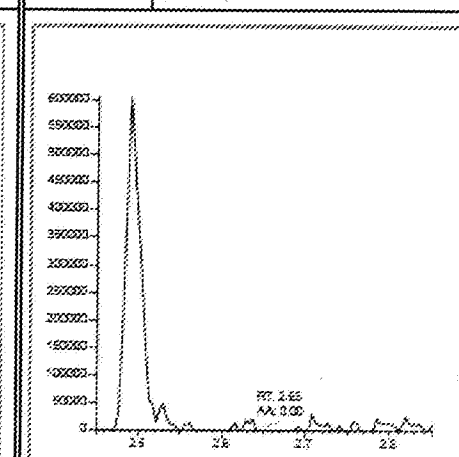
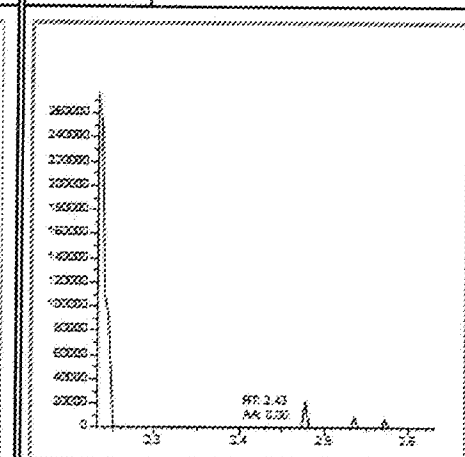
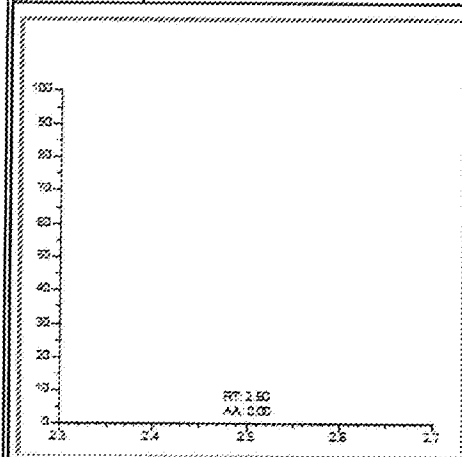
hydrolysis check

Compound: <b>normorphine</b>	Compound: <b>noroxycodone</b>	Compound: <b>oxycodone</b>	Compound: <b>oxymorphone</b>
RT(exp) 0.44	RT(exp) 1.69	RT(exp) 1.72	RT(exp) 0.64
RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)
Area: N/A	Area: N/A	Area: N/A	Area: N/A
m/z:	m/z:	m/z:	m/z:
delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A
			
Compound: <b>ecgonine methyl ester</b>	Compound: <b>benzoylecgonine</b>	Compound: <b>cocaethylene</b>	Compound: <b>cocaine</b>
RT(exp) 0.26	RT(exp) 1.96	RT(exp) 2.5	RT(exp) 2.3
RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)
Area: N/A	Area: N/A	Area: N/A	Area: N/A
m/z:	m/z:	m/z:	m/z:
delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A
			

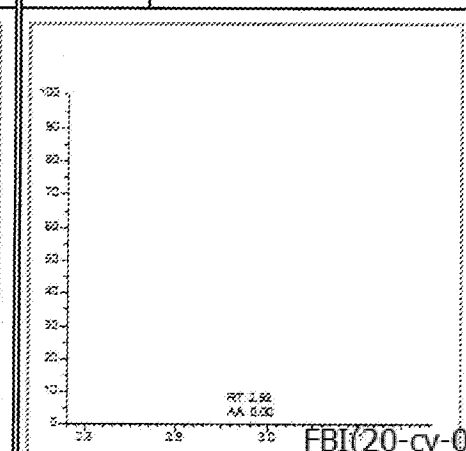
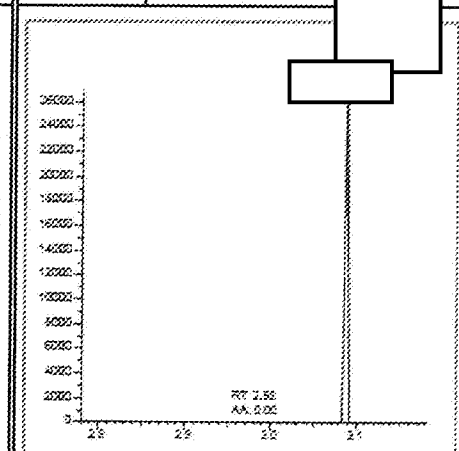
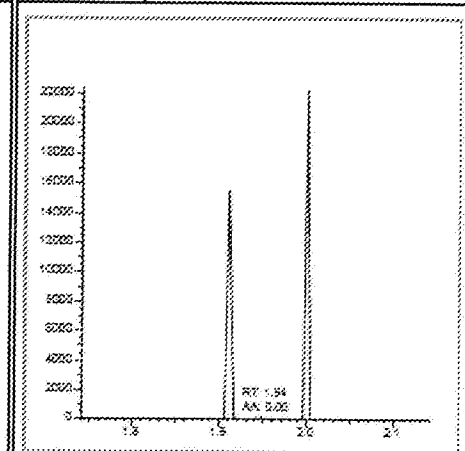
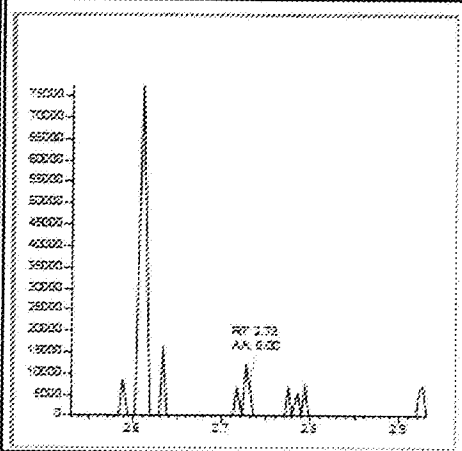
b6 -1  
b7C -1

hydrolysis check

Compound:	<b>brompheniramine</b>	Compound:	<b>chlorpheniramine</b>	Compound:	<b>dextromethorphan</b>	Compound:	<b>dextrorphan</b>
RT(exp)	2.5	RT(exp)	2.43	RT(exp)	2.65	RT(exp)	2.11
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A



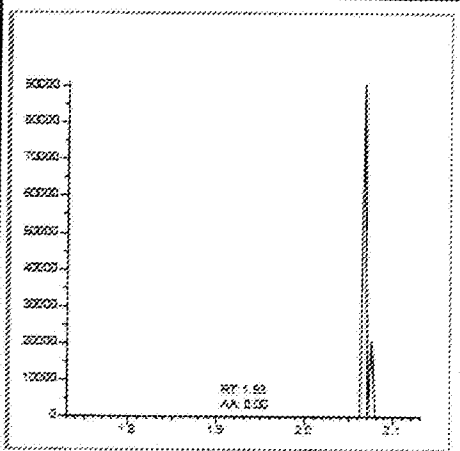
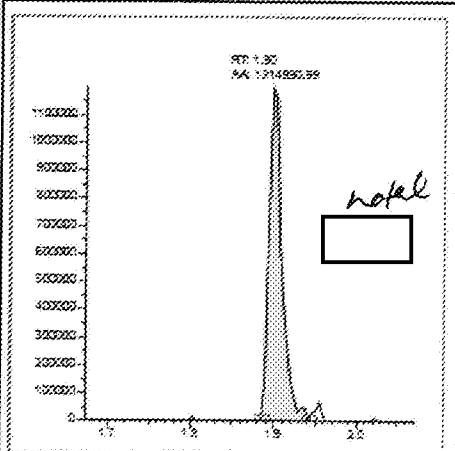
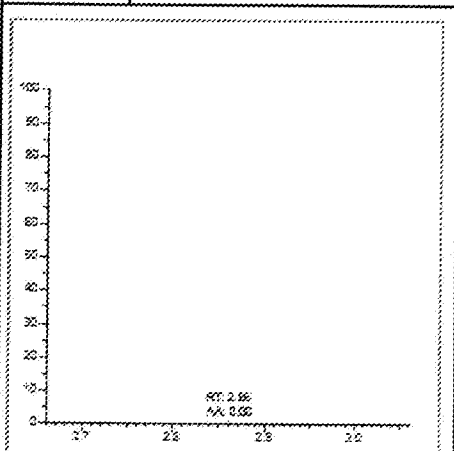
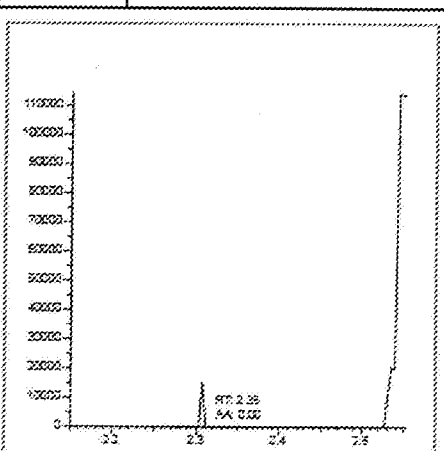
Compound:	<b>diphenhydramine</b>	Compound:	<b>doxylamine</b>	Compound:	<b>hydroxyzine</b>	Compound:	<b>norchlorcyclizine</b>
RT(exp)	2.73	RT(exp)	1.94	RT(exp)	2.98	RT(exp)	2.98
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A



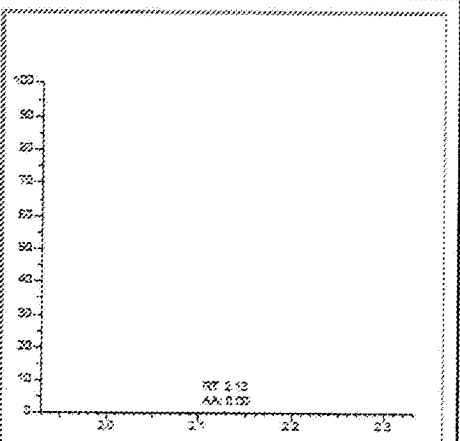
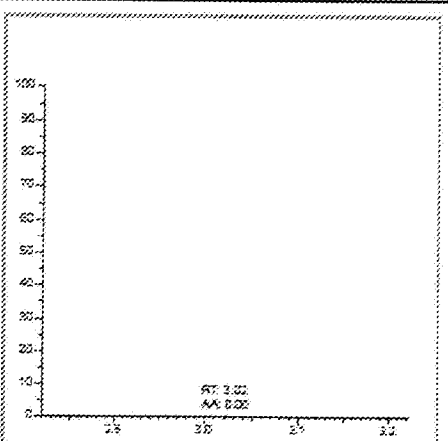
b6 -1  
b7C -1

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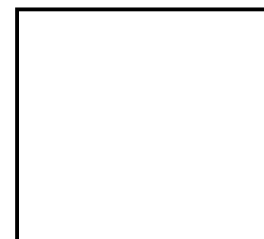
hydrolysis check

Compound:	<b>pheniramine</b>	Compound:	<b>tetrahydrozoline</b>	Compound:	<b>zaleplon</b>	Compound:	<b>zolpidem</b>
RT(exp)	1.93	RT(exp)	1.87	RT(exp)	2.86	RT(exp)	2.35
RT(delta)	N/A (N/A)	RT(delta)	1.9 (0.03)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	1315000	Area:	N/A	Area:	N/A
m/z:		m/z:	201.1393	m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): 0.65	delta	(mmu): N/A	delta	(mmu): N/A
							

b6 -1  
 b7C -1

Compound:	<b>zopiclone</b>	Compound:	<b>duloxetine</b>
RT(exp)	2.13	RT(exp)	3.02
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A
m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A
			

b6 -1  
 b7C -1



## Exclusionary Screening by UPLC/FTMS

Batch: 20170929

Method: ExclusionSOP\_TargetingScreening

Inst. Method:

Acquired: 9/29/2017 10:17

Sample Type: Unknown

Vial Position: 2:A.6

Lab Name: FBI Laboratory

Assay: Exclusionary Screening TOX 215

Sample \_\_\_\_\_ ncu

Comment \_\_\_\_\_

File 20170929\_03

Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
●	d5-alprazolam	+	1.47E+07	3.07 (-0.03)	314.1215	314.1223	0.75	100.00	6 of 7	
●	d5-hydroxalprazolam	+	3.38E+06	2.91 (-0.03)	330.1165	330.1173	0.86	100.00	6 of 6	
●	d4-clonazepam	+	6.27E+05	3.08 (-0.03)	320.0735	320.0742	0.71	100.00	5 of 5	
●	d4-7-aminoclonazepam	+	2.11E+06	2.04 (-0.03)	290.0993	290.1000	0.74	100.00	5 of 6	
●	d5-diazepam	+	N/A	N/A (N/A)	290.1103	N/A	N/A	N/A	N/A	
●	d5-oxazepam	+	1.33E+06	2.99 (-0.01)	292.0896	292.0903	0.76	98.00	4 of 5	
●	d6-zolpidem	+	6.89E+06	2.35 (-0.02)	314.2134	314.2139	0.53	100.00	3 of 3	
●	d3-benzoylcegonine	+	5.71E+07	1.96 (-0.01)	293.1575	293.1582	0.69	100.00	3 of 4	
●	d3-diphenhydramine	+	4.06E+06	2.73 (0)	259.1884	259.1892	0.79	97.00	3 of 3	
●	d6-oxycodone	+	1.69E+07	1.7 (-0.02)	322.1920	322.1928	0.84	100.00	3 of 4	
●	d3-morphine	+	1.16E+07	0.55 (-0.01)	289.1626	289.1633	0.73	100.00	3 of 4	
●	d3-hydrocodone	+	1.40E+07	1.79 (-0.04)	303.1783	303.1789	0.67	100.00	3 of 4	
	morphine	+	N/A	N/A (N/A)	286.1438	N/A	N/A	N/A	N/A	
	hydroxalprazolam	+	N/A	N/A (N/A)	325.0851	N/A	N/A	N/A	N/A	
	hydroxymidazolam	+	N/A	N/A (N/A)	342.0804	N/A	N/A	N/A	N/A	
	hydroxytriazolam	+	N/A	N/A (N/A)	359.0461	N/A	N/A	N/A	N/A	
	7-aminoclonazepam	+	N/A	N/A (N/A)	286.0742	N/A	N/A	N/A	N/A	
	7-aminoflunitrazepam	+	N/A	N/A (N/A)	284.1194	N/A	N/A	N/A	N/A	
	alprazolam	+	N/A	N/A (N/A)	309.0902	N/A	N/A	N/A	N/A	
	bromazepam	+	N/A	N/A (N/A)	316.0080	N/A	N/A	N/A	N/A	
	chlordiazepoxide	+	N/A	N/A (N/A)	300.0898	N/A	N/A	N/A	N/A	
	clonazepam	+	N/A	N/A (N/A)	316.0484	N/A	N/A	N/A	N/A	
	desalkylflurazepam	+	N/A	N/A (N/A)	289.0539	N/A	N/A	N/A	N/A	
	desmethyflunitrazepam	+	N/A	N/A (N/A)	300.0779	N/A	N/A	N/A	N/A	
	diazepam	+	N/A	N/A (N/A)	285.0789	N/A	N/A	N/A	N/A	
	estazolam	+	N/A	N/A (N/A)	295.0745	N/A	N/A	N/A	N/A	
	etizolam	+	N/A	N/A (N/A)	343.0779	N/A	N/A	N/A	N/A	
	flunitrazepam	+	N/A	N/A (N/A)	314.0936	N/A	N/A	N/A	N/A	
	flurazepam	+	N/A	N/A (N/A)	388.1586	N/A	N/A	N/A	N/A	

b7E -2

b6 -1  
b7C -1

2017-00469 1027-2017



## Exclusionary Screening by UPLC/FTMS

Batch: 20170929

Method: ExclusionSOP\_TargetingScreening

Inst. Method:

Acquired: 9/29/2017 10:17

Sample Type: Unknown

Vial Position: 2:A.6

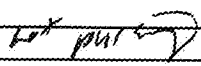
Lab Name: FBI Laboratory

Assay: Exclusionary Screening TOX 215

Sample ncu

Comment \_\_\_\_\_

File 20170929\_03

Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	lorazepam	+	N/A	N/A (N/A)	321.0192	N/A		N/A N/A	N/A	
	lormetazepam	+	N/A	N/A (N/A)	335.0349	N/A		N/A N/A	N/A	
	medazepam	+	N/A	N/A (N/A)	271.0997	N/A		N/A N/A	N/A	
	midazolam	+	N/A	N/A (N/A)	326.0855	N/A		N/A N/A	N/A	
	nordiazepam	+	N/A	N/A (N/A)	271.0633	N/A		N/A N/A	N/A	
	oxazepam	+	N/A	N/A (N/A)	287.0582	N/A		N/A N/A	N/A	
	phenazepam	+	N/A	N/A (N/A)	348.9738	N/A		N/A N/A	N/A	
	prazepam	+	N/A	N/A (N/A)	325.1102	N/A		N/A N/A	N/A	
	temazepam	+	N/A	N/A (N/A)	301.0738	N/A		N/A N/A	N/A	
	tetrazepam	+	N/A	N/A (N/A)	289.1102	N/A		N/A N/A	N/A	
	triazolam	+	N/A	N/A (N/A)	343.0512	N/A		N/A N/A	N/A	
	6-acetylmorphine	+	N/A	N/A (N/A)	328.1543	N/A		N/A N/A	N/A	
	codeine	+	N/A	N/A (N/A)	300.1594	N/A		N/A N/A	N/A	
	dihydrocodeine	+	N/A	N/A (N/A)	302.1751	N/A		N/A N/A	N/A	
	dihydromorphone	+	N/A	N/A (N/A)	288.1594	N/A		N/A N/A	N/A	
	EDDP	+	N/A	N/A (N/A)	278.1903	N/A		N/A N/A	N/A	
	hydrocodone	+	N/A	N/A (N/A)	300.1594	N/A		N/A N/A	N/A	
	hydromorphone	+	N/A	N/A (N/A)	286.1438	N/A		N/A N/A	N/A	
	norcodeine	+	N/A	N/A (N/A)	286.1438	N/A		N/A N/A	N/A	
	normorphine	+	N/A	N/A (N/A)	272.1281	N/A		N/A N/A	N/A	
	noroxycodone	+	N/A	N/A (N/A)	302.1387	N/A		N/A N/A	N/A	
	oxycodone	+	N/A	N/A (N/A)	316.1543	N/A		N/A N/A	N/A	
	oxymorphone	+	N/A	N/A (N/A)	302.1387	N/A		N/A N/A	N/A	
	ecgonine methyl ester	+	N/A	N/A (N/A)	200.1281	N/A		N/A N/A	N/A	
	benzoylecgonine	+	N/A	N/A (N/A)	290.1387	N/A		N/A N/A	N/A	
	cocaethylene	+	N/A	N/A (N/A)	318.1700	N/A		N/A N/A	N/A	
	cocaine	+	1.91E+05	2.31 (0.01)	304.1543	304.1553	0.94	100.00	2 of 2	For pur 
	brompheniramine	+	N/A	N/A (N/A)	319.0804	N/A		N/A N/A	N/A	
	chlorpheniramine	+	N/A	N/A (N/A)	275.1310	N/A		N/A N/A	N/A	

b7E -2

b6 -1  
b7C -1b6 -1  
b7C -1

## Exclusionary Screening by UPLC/FTMS

Batch: 20170929

Method: ExclusionSOP\_TargetingScreening

Inst. Method:

Acquired: 9/29/2017 10:17

Sample Type: Unknown

Vial Position: 2.A.6

Lab Name: FBI Laboratory

Assay: Exclusionary Screening TOX 215

Sample ncu

Comment \_\_\_\_\_

File 20170929\_03

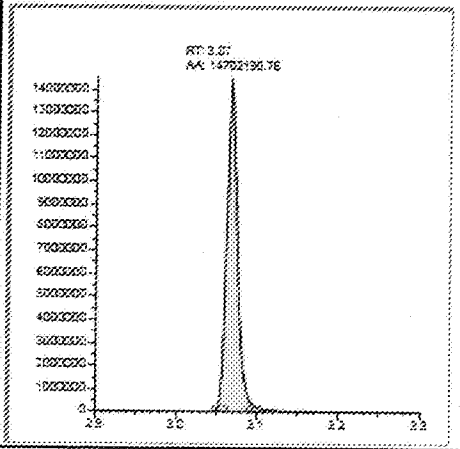
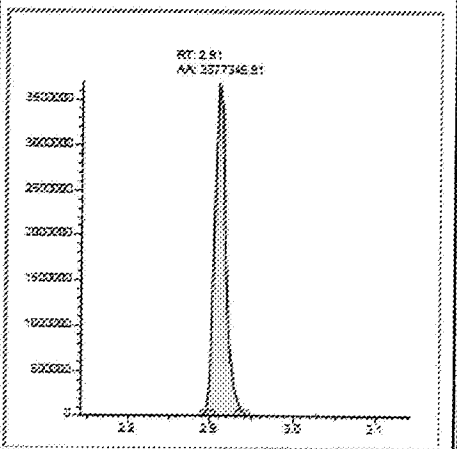
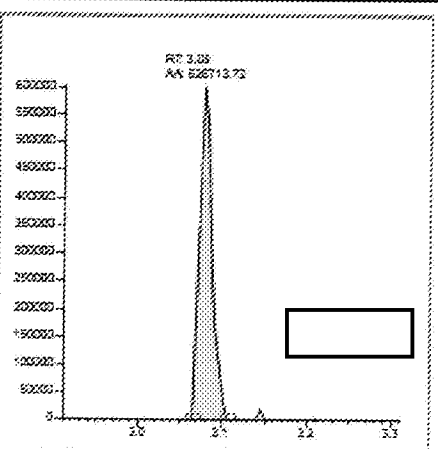
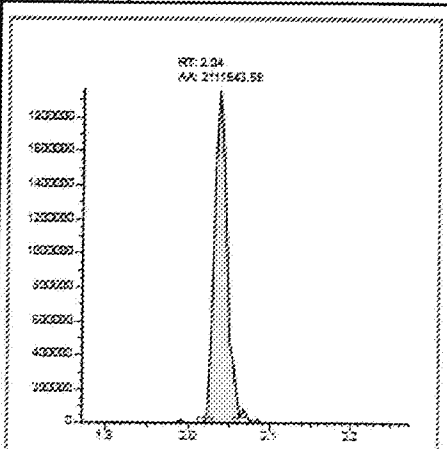
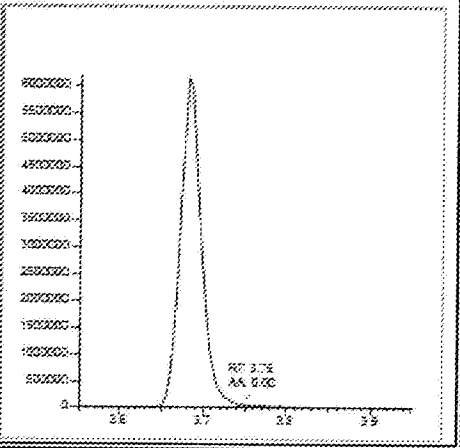
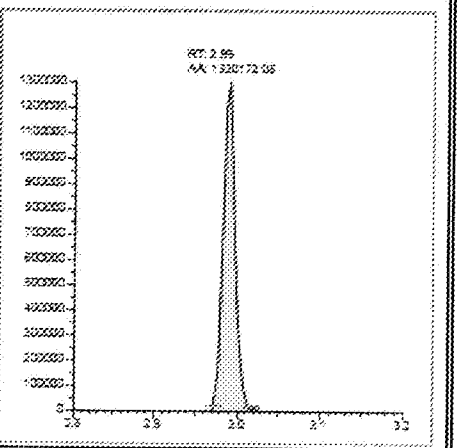
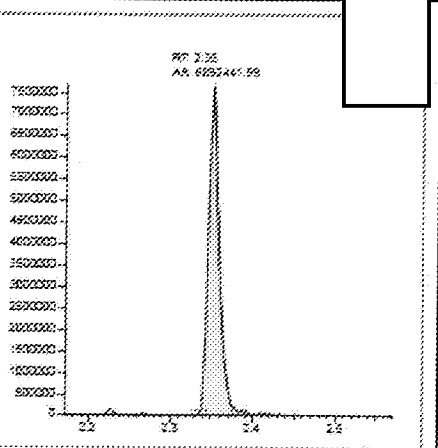
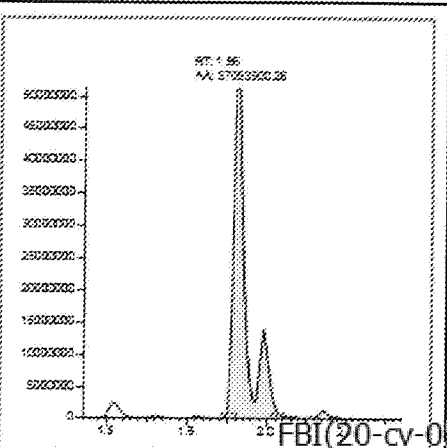
Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	dextromethorphan	+	N/A	N/A (N/A)	272.2009	N/A	N/A	N/A	N/A	
	dextrorphan	+	N/A	N/A (N/A)	258.1852	N/A	N/A	N/A	N/A	
	diphenhydramine	+	N/A	N/A (N/A)	256.1696	N/A	N/A	N/A	N/A	
	doxylamine	+	N/A	N/A (N/A)	271.1805	N/A	N/A	N/A	N/A	
	hydroxyzine	+	N/A	N/A (N/A)	375.1834	N/A	N/A	N/A	N/A	
	norchlorcyclizine	+	N/A	N/A (N/A)	287.1310	N/A	N/A	N/A	N/A	
	pheniramine	+	N/A	N/A (N/A)	241.1699	N/A	N/A	N/A	N/A	
●	tetrahydrozoline	+	1.13E+06	1.9 (0.03)	201.1386	201.1393	0.67	72.00	1 of 4	
	zaleplon	+	N/A	N/A (N/A)	306.1349	N/A	N/A	N/A	N/A	
	zolpidem	+	N/A	N/A (N/A)	308.1757	N/A	N/A	N/A	N/A	
	zopiclone	+	N/A	N/A (N/A)	389.1123	N/A	N/A	N/A	N/A	
	duloxetine	+	N/A	N/A (N/A)	298.1260	N/A	N/A	N/A	N/A	

b7E -2

b6 -1  
b7C -1

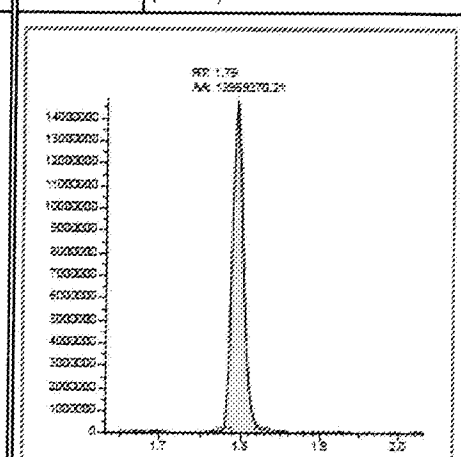
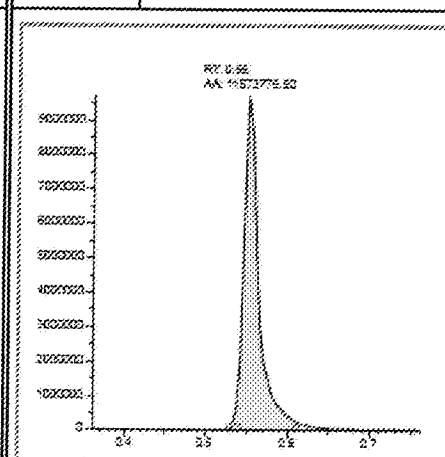
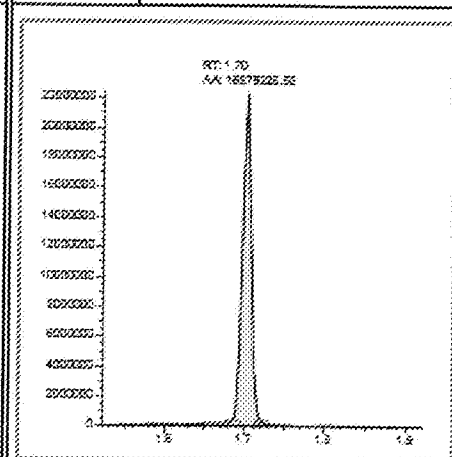
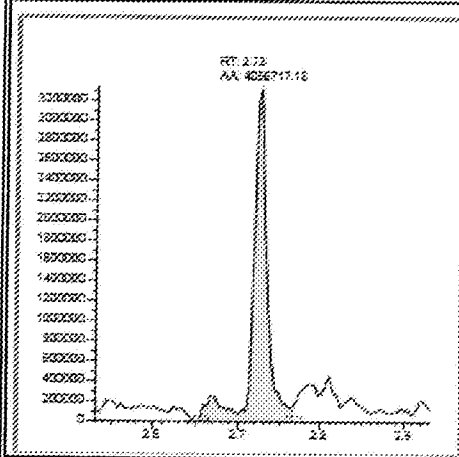
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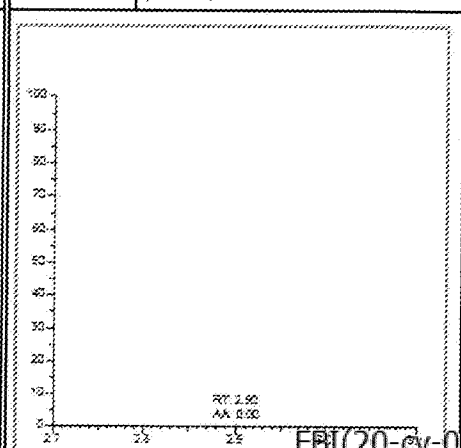
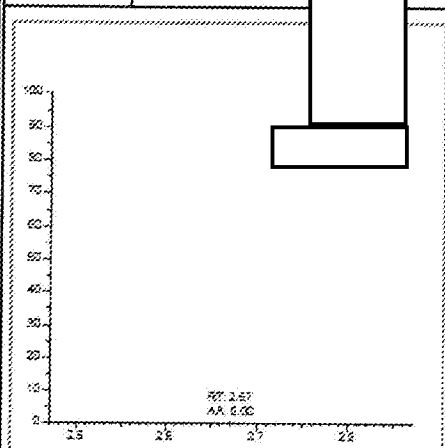
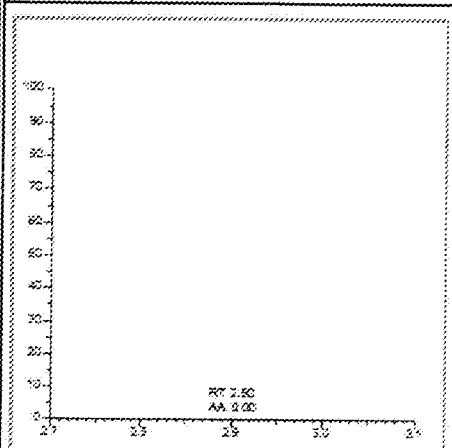
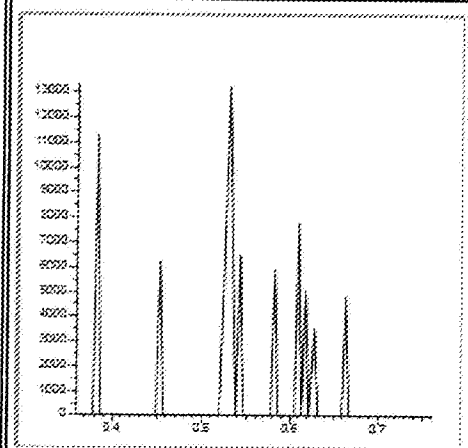
Compound: <b>d5-alprazolam</b>	Compound: <b>d5-hydroxalprazolam</b>	Compound: <b>d4-clonazepam</b>	Compound: <b>d4-7-aminoclonazepam</b>
RT(exp) 3.1	RT(exp) 2.94	RT(exp) 3.11	RT(exp) 2.07
RT(delta) 3.07 (-0.03)	RT(delta) 2.91 (-0.03)	RT(delta) 3.08 (-0.03)	RT(delta) 2.04 (-0.03)
Area: 14702000	Area: 3377300	Area: 626710	Area: 2111500
m/z: 314.1223	m/z: 330.1173	m/z: 320.0742	m/z: 290.1000
delta (mmu): 0.75	delta (mmu): 0.86	delta (mmu): 0.71	delta (mmu): 0.74
			
Compound: <b>d5-diazepam</b>	Compound: <b>d5-oxazepam</b>	Compound: <b>d6-zolpidem</b>	Compound: <b>d3-benzoylecgonine</b>
RT(exp) 3.75	RT(exp) 3	RT(exp) 2.37	RT(exp) 1.97
RT(delta) N/A (N/A)	RT(delta) 2.99 (-0.01)	RT(delta) 2.35 (-0.02)	RT(delta) 1.96 (-0.01)
Area: N/A	Area: 1330200	Area: 6892400	Area: 57094000
m/z:	m/z: 292.0903	m/z: 314.2139	m/z: 293.1582
delta (mmu): N/A	delta (mmu): 0.76	delta (mmu): 0.53	delta (mmu): 0.69
			

b6 -1  
b7c -1

Compound:	<b>d3-diphenhydramine</b>	Compound:	<b>d6-oxycodone</b>	Compound:	<b>d3-morphine</b>	Compound:	<b>d3-hydrocodone</b>
RT(exp)	2.73	RT(exp)	1.72	RT(exp)	0.56	RT(exp)	1.83
RT(delta)	2.73 (0)	RT(delta)	1.7 (-0.02)	RT(delta)	0.55 (-0.01)	RT(delta)	1.79 (-0.04)
Area:	4056700	Area:	16879000	Area:	11574000	Area:	13959000
m/z:	259.1892	m/z:	322.1928	m/z:	289.1633	m/z:	303.1789
delta	(mmu): 0.79	delta	(mmu): 0.84	delta	(mmu): 0.73	delta	(mmu): 0.67

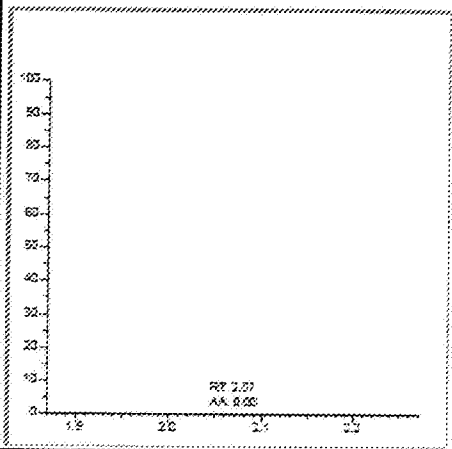
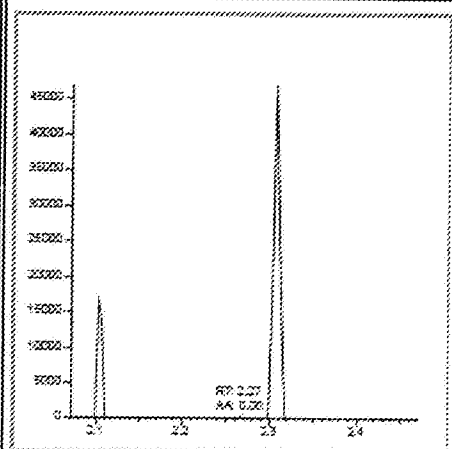
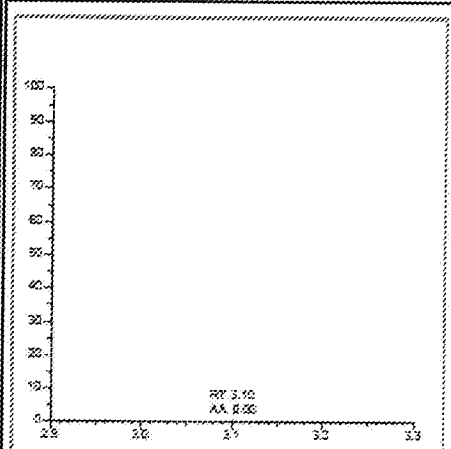
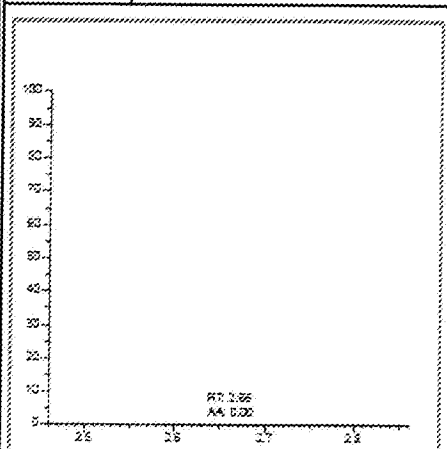


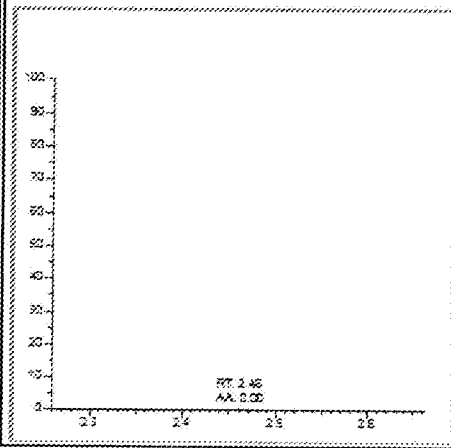
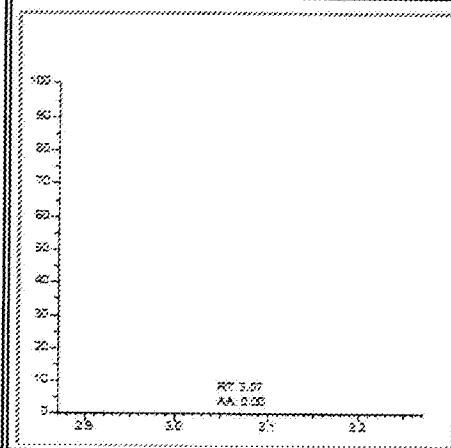
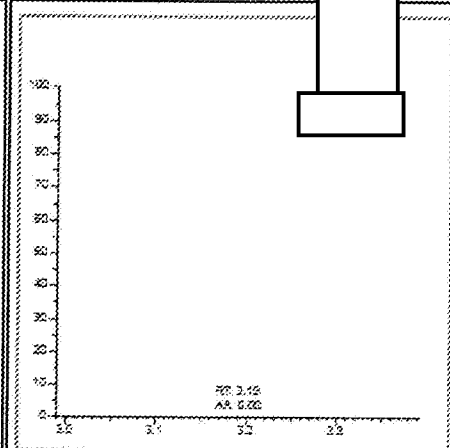
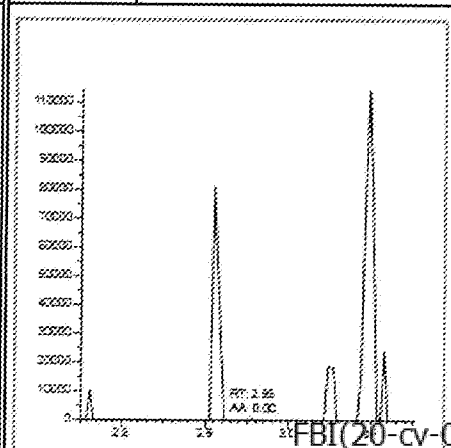
Compound:	<b>morphine</b>	Compound:	<b>hydroxylprazolam</b>	Compound:	<b>hydroxymidazolam</b>	Compound:	<b>hydroxytriazolam</b>
RT(exp)	0.56	RT(exp)	2.9	RT(exp)	2.67	RT(exp)	2.9
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A



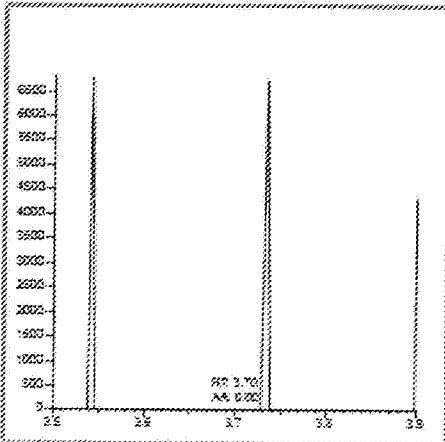
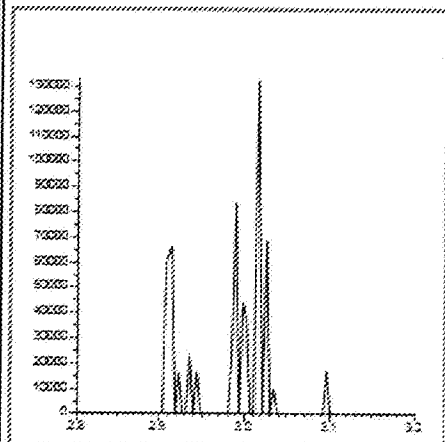
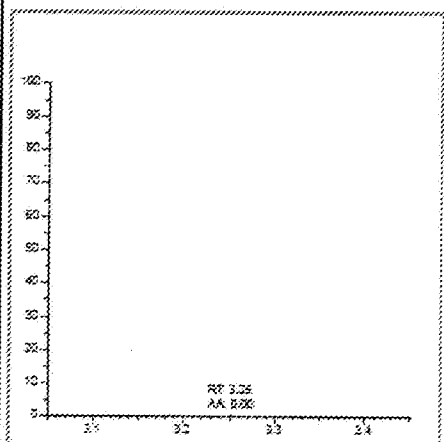
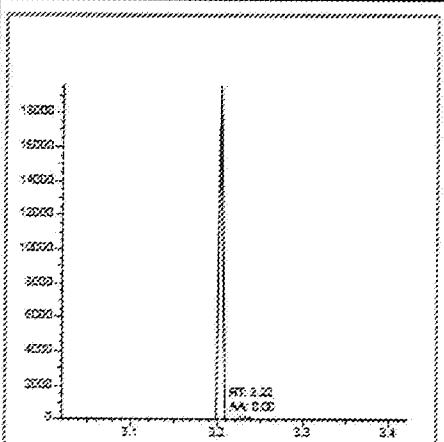
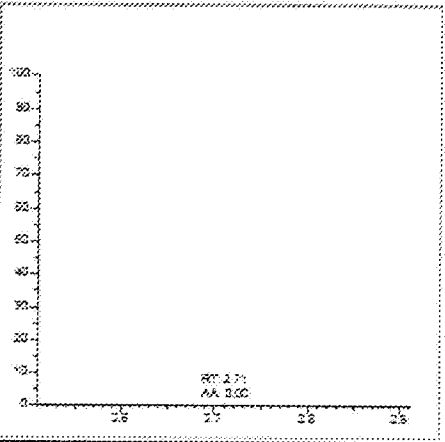
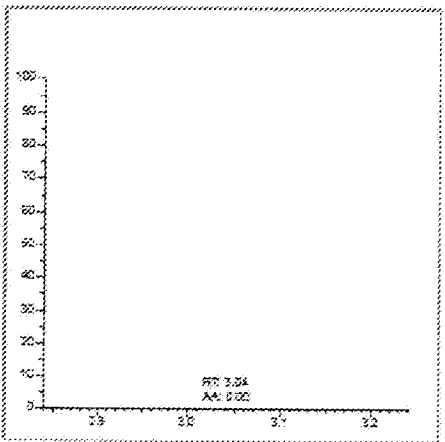
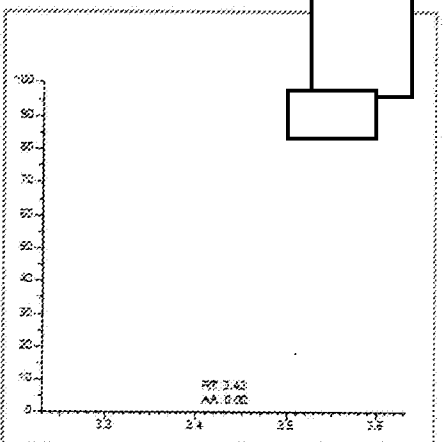
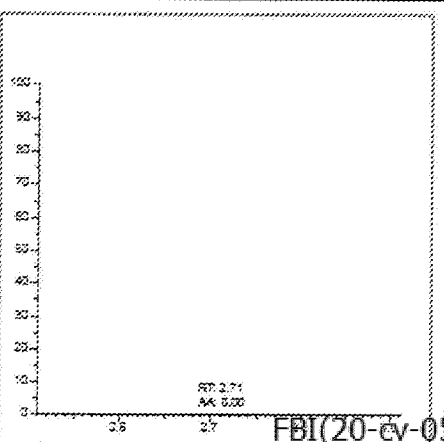
b6 -1  
 b7C -1

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Compound:	<b>7-aminoclonazepam</b>	Compound:	<b>7-aminoflunitrazepam</b>	Compound:	<b>alprazolam</b>	Compound:	<b>bromazepam</b>
RT(exp)	2.07	RT(exp)	2.27	RT(exp)	3.1	RT(exp)	2.66
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>chlordiazepoxide</b>	Compound:	<b>clonazepam</b>	Compound:	<b>desalkylflurazepam</b>	Compound:	<b>desmethylflunitrazepam</b>
RT(exp)	2.46	RT(exp)	3.07	RT(exp)	3.19	RT(exp)	2.95
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

b6 -1  
 b7C -1

Compound:	diazepam	Compound:	estazolam	Compound:	etizolam	Compound:	flunitrazepam
RT(exp)	3.7	RT(exp)	3	RT(exp)	3.25	RT(exp)	3.22
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							
Compound:	flurazepam	Compound:	lorazepam	Compound:	lormetazepam	Compound:	medazepam
RT(exp)	2.71	RT(exp)	3.04	RT(exp)	3.43	RT(exp)	2.71
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

b6 -1  
b7C -1

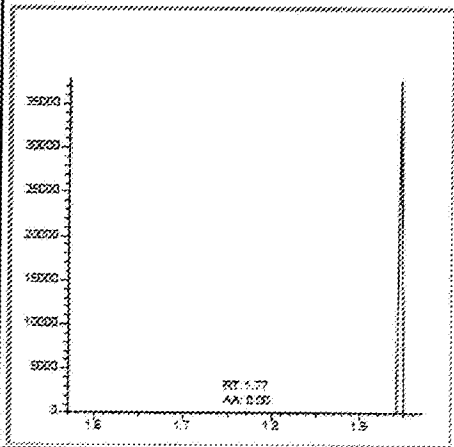
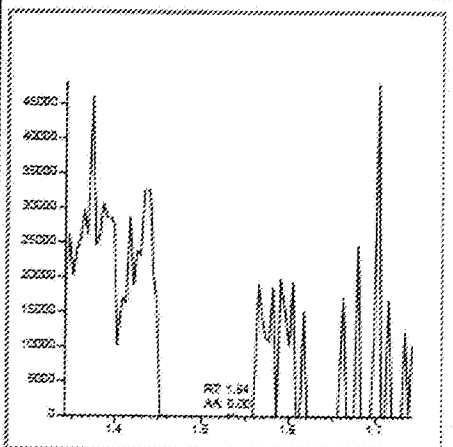
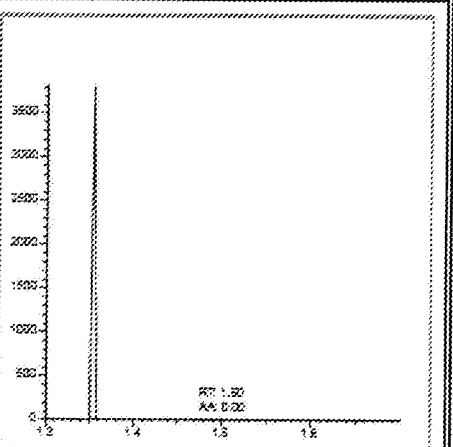
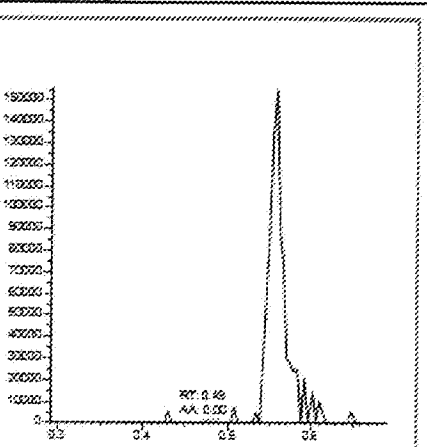
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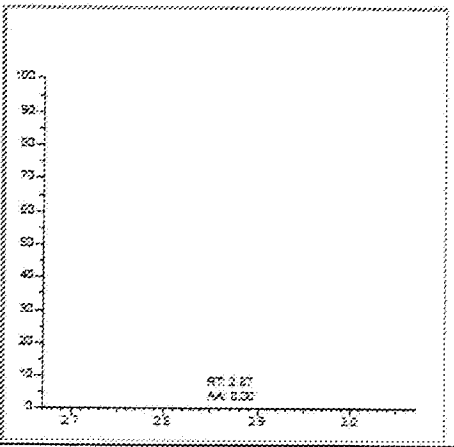
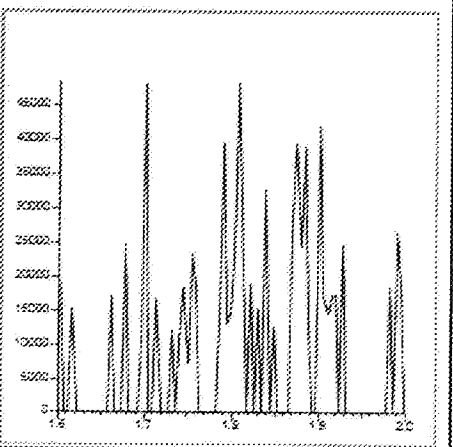
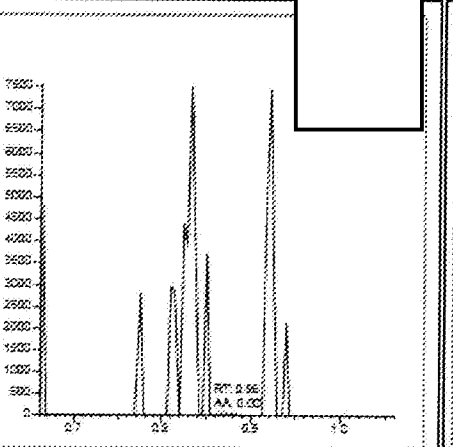
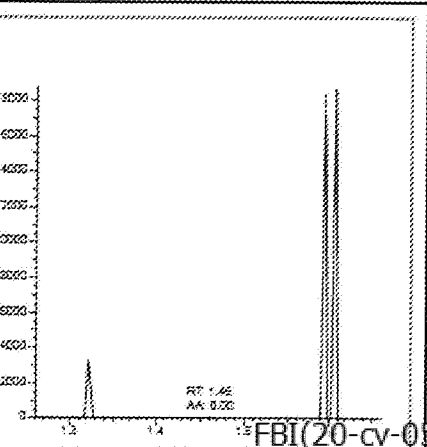
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Compound:	<b>midazolam</b>	Compound:	<b>nordiazepam</b>	Compound:	<b>oxazepam</b>	Compound:	<b>phenazepam</b>
RT(exp)	2.67	RT(exp)	3.19	RT(exp)	2.98	RT(exp)	3.45
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A

Compound:	<b>prazepam</b>	Compound:	<b>temazepam</b>	Compound:	<b>tetrazepam</b>	Compound:	<b>triazolam</b>
RT(exp)	5.33	RT(exp)	3.27	RT(exp)	3.68	RT(exp)	3.12
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A

b6 -1  
b7C -1

Compound:	<b>6-acetylmorphine</b>	Compound:	<b>codeine</b>	Compound:	<b>dihydrocodeine</b>	Compound:	<b>dihydromorphine</b>
RT(exp)	1.77	RT(exp)	1.54	RT(exp)	1.5	RT(exp)	0.49
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

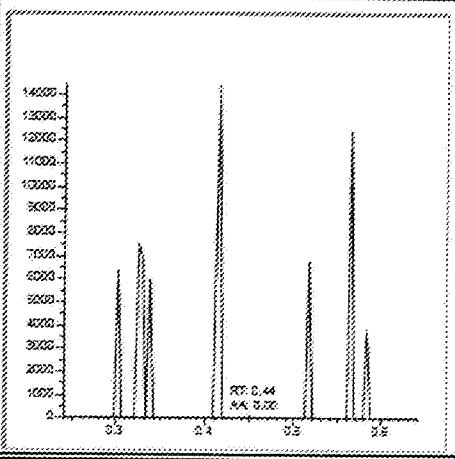
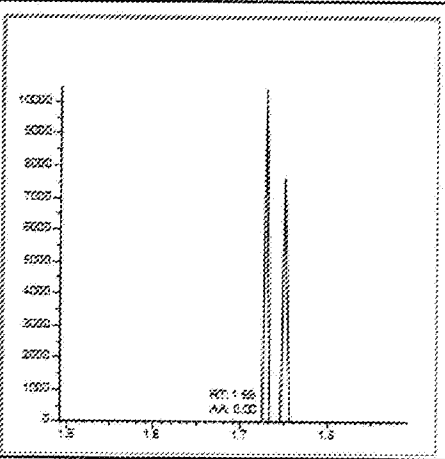
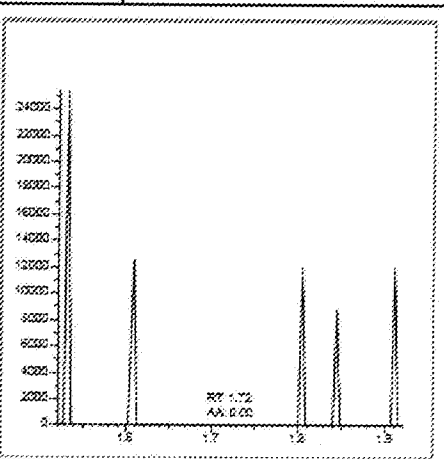
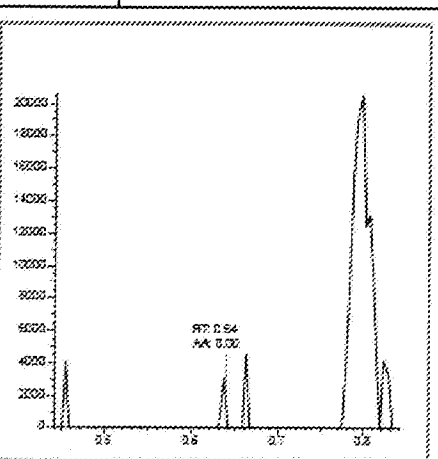
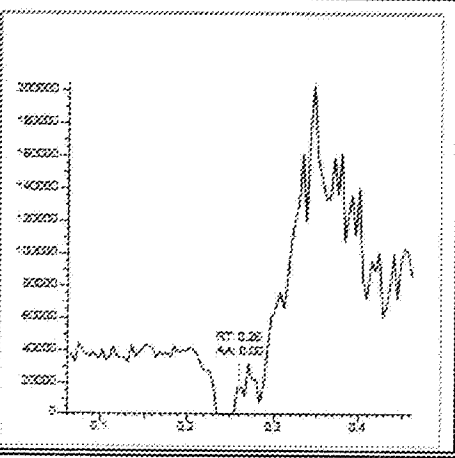
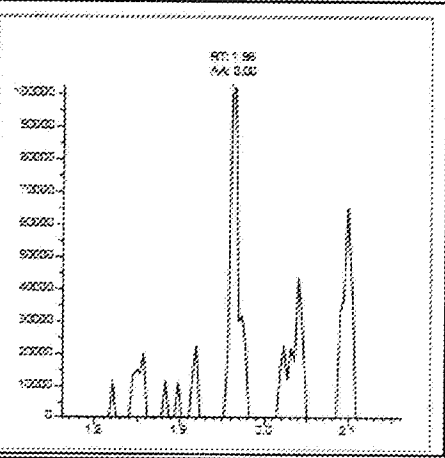
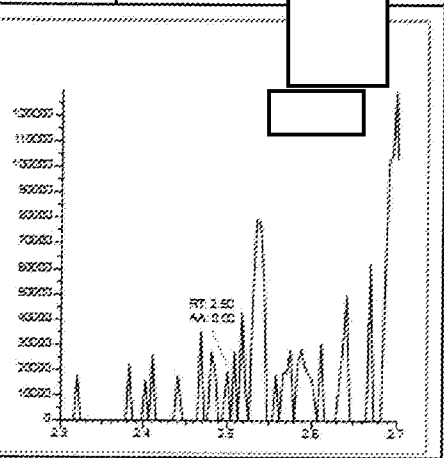
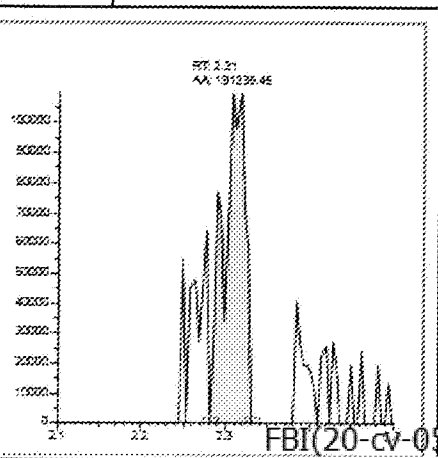
Compound:	<b>EDDP</b>	Compound:	<b>hydrocodone</b>	Compound:	<b>hydromorphone</b>	Compound:	<b>norcodeine</b>
RT(exp)	2.87	RT(exp)	1.8	RT(exp)	0.86	RT(exp)	1.46
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

b6 -1  
 b7C -1

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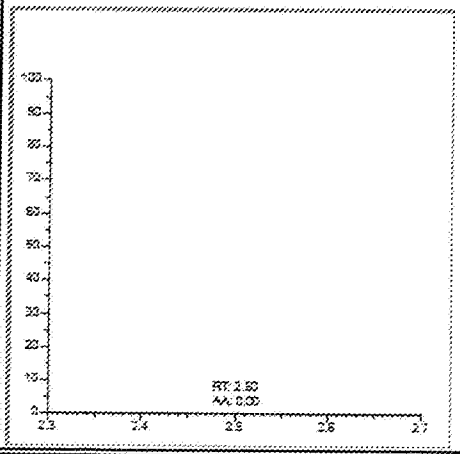
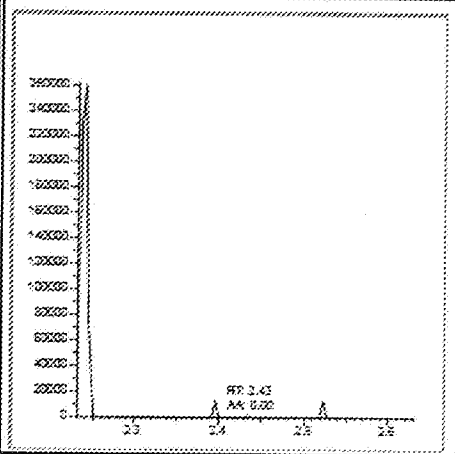
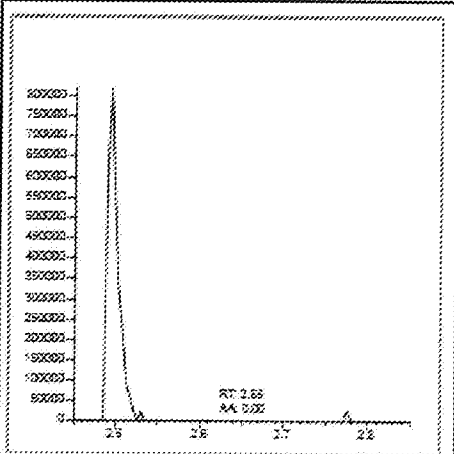
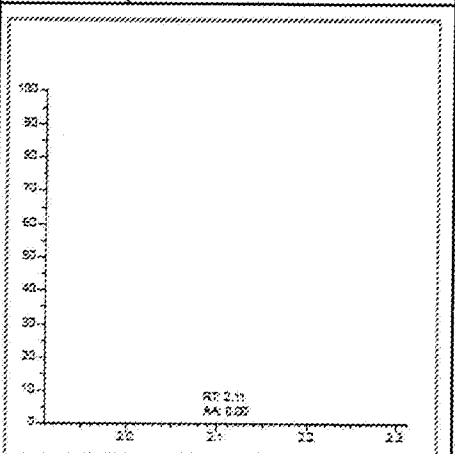
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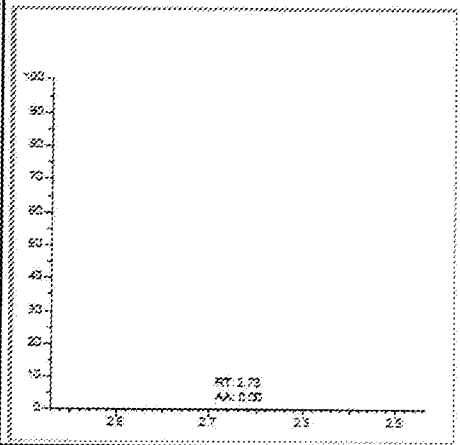
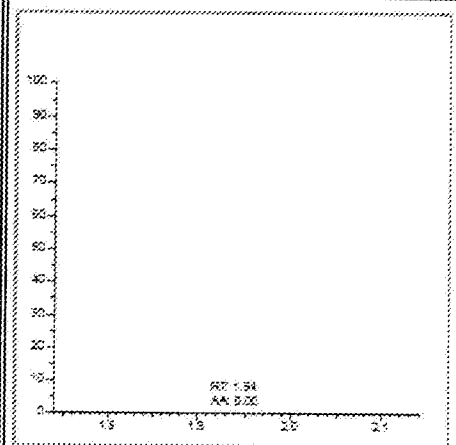
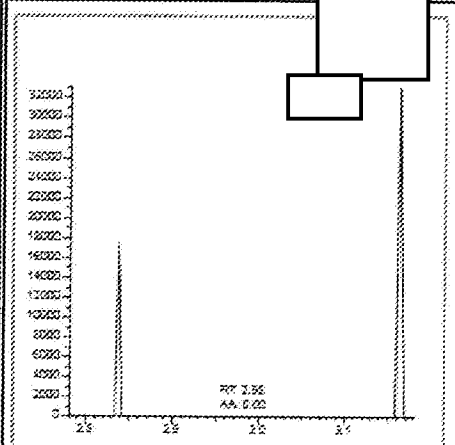
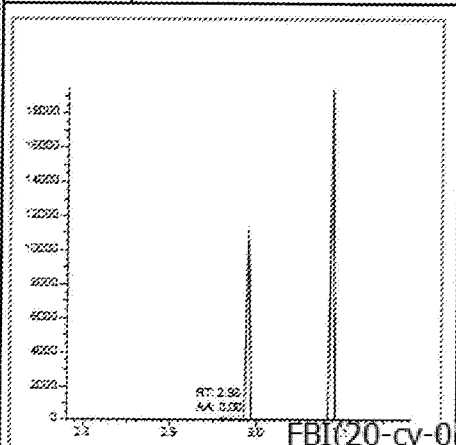
Compound:	<b>normorphine</b>	Compound:	<b>noroxycodone</b>	Compound:	<b>oxycodone</b>	Compound:	<b>oxymorphone</b>
RT(exp)	0.44	RT(exp)	1.69	RT(exp)	1.72	RT(exp)	0.64
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							
Compound:	<b>ecgonine methyl ester</b>	Compound:	<b>benzoylecgonine</b>	Compound:	<b>cocaethylene</b>	Compound:	<b>cocaine</b>
RT(exp)	0.26	RT(exp)	1.96	RT(exp)	2.5	RT(exp)	2.3
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	2.31 (0.01)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	191340
m/z:		m/z:		m/z:		m/z:	304.1553
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): 0.94
							

b6 -1  
 b7C -1

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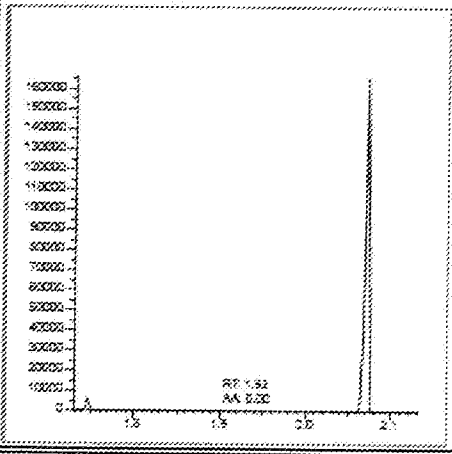
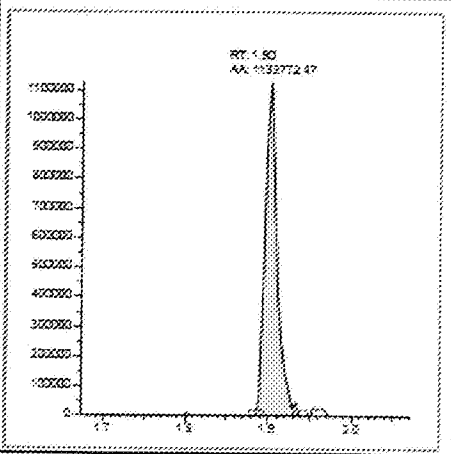
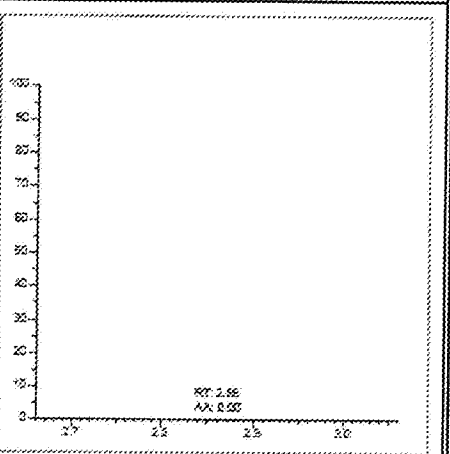
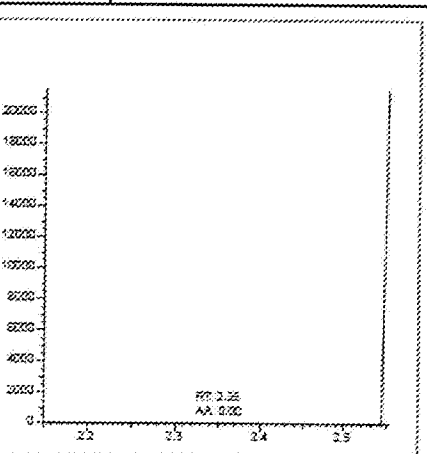
ncu

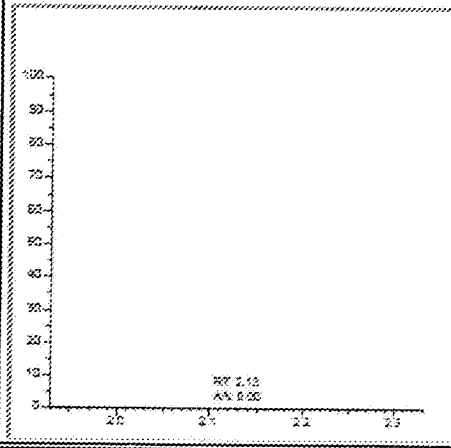
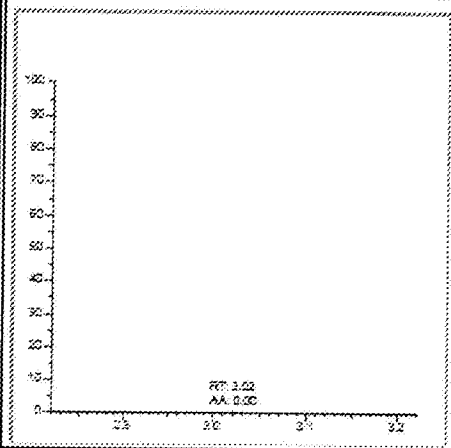
Compound:	<b>brompheniramine</b>	Compound:	<b>chlorpheniramine</b>	Compound:	<b>dextromethorphan</b>	Compound:	<b>dextrorphan</b>
RT(exp)	2.5	RT(exp)	2.43	RT(exp)	2.65	RT(exp)	2.11
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

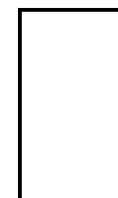
Compound:	<b>diphenhydramine</b>	Compound:	<b>doxylamine</b>	Compound:	<b>hydroxyzine</b>	Compound:	<b>norchlorcyclizine</b>
RT(exp)	2.73	RT(exp)	1.94	RT(exp)	2.98	RT(exp)	2.98
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

b6 -1  
b7C -1

ncu

Compound:	<b>pheniramine</b>	Compound:	<b>tetrahydrozoline</b>	Compound:	<b>zaleplon</b>	Compound:	<b>zolpidem</b>
RT(exp)	1.93	RT(exp)	1.87	RT(exp)	2.86	RT(exp)	2.35
RT(delta)	N/A (N/A)	RT(delta)	1.9 (0.03)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	1133800	Area:	N/A	Area:	N/A
m/z:		m/z:	201.1393	m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): 0.67	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>zopiclone</b>	Compound:	<b>duloxetine</b>
RT(exp)	2.13	RT(exp)	3.02
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A
m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A
			



b6 -1  
 b7C -1

## Exclusionary Screening by UPLC/FTMS

Batch: 20170929

Method: ExclusionSOP\_TargetingScreening

Inst. Method:

Acquired: 9/29/2017 10:05

Sample Type: Unknown

Vial Position: 2:A.5

Lab Name: FBI Laboratory

Assay: Exclusionary Screening TOX 215

Sample: **sb**

Comment:

File: 20170929\_02

b7E -2

Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	d5-alprazolam	+	N/A	N/A (N/A)	314.1215	N/A		N/A N/A	N/A	
	d5-hydroxalprazolam	+	N/A	N/A (N/A)	330.1165	N/A		N/A N/A	N/A	
	d4-clonazepam	+	N/A	N/A (N/A)	320.0735	N/A		N/A N/A	N/A	
	d4-7-aminoclonazepam	+	N/A	N/A (N/A)	290.0993	N/A		N/A N/A	N/A	
	d5-diazepam	+	N/A	N/A (N/A)	290.1103	N/A		N/A N/A	N/A	
	d5-oxazepam	+	N/A	N/A (N/A)	292.0896	N/A		N/A N/A	N/A	
	d6-zolpidem	+	N/A	N/A (N/A)	314.2134	N/A		N/A N/A	N/A	
	d3-benzoyllecgonine	+	N/A	N/A (N/A)	293.1575	N/A		N/A N/A	N/A	
	d3-diphenhydramine	+	N/A	N/A (N/A)	259.1884	N/A		N/A N/A	N/A	
	d6-oxycodone	+	N/A	N/A (N/A)	322.1920	N/A		N/A N/A	N/A	
	d3-morphine	+	N/A	N/A (N/A)	289.1626	N/A		N/A N/A	N/A	
	d3-hydrocodone	+	N/A	N/A (N/A)	303.1783	N/A		N/A N/A	N/A	
	morphine	+	N/A	N/A (N/A)	286.1438	N/A		N/A N/A	N/A	
	hydroxalprazolam	+	N/A	N/A (N/A)	325.0851	N/A		N/A N/A	N/A	
	hydroxymidazolam	+	N/A	N/A (N/A)	342.0804	N/A		N/A N/A	N/A	
	hydroxytriazolam	+	N/A	N/A (N/A)	359.0461	N/A		N/A N/A	N/A	
	7-aminoclonazepam	+	N/A	N/A (N/A)	286.0742	N/A		N/A N/A	N/A	
	7-aminoflunitrazepam	+	N/A	N/A (N/A)	284.1194	N/A		N/A N/A	N/A	
	alprazolam	+	N/A	N/A (N/A)	309.0902	N/A		N/A N/A	N/A	
	bromazepam	+	N/A	N/A (N/A)	316.0080	N/A		N/A N/A	N/A	
	chlordiazepoxide	+	N/A	N/A (N/A)	300.0898	N/A		N/A N/A	N/A	
	clonazepam	+	N/A	N/A (N/A)	316.0484	N/A		N/A N/A	N/A	
	desalkylflurazepam	+	N/A	N/A (N/A)	289.0539	N/A		N/A N/A	N/A	
	desmethylflunitrazepam	+	N/A	N/A (N/A)	300.0779	N/A		N/A N/A	N/A	
	diazepam	+	N/A	N/A (N/A)	285.0789	N/A		N/A N/A	N/A	
	estazolam	+	N/A	N/A (N/A)	295.0745	N/A		N/A N/A	N/A	
	etizolam	+	N/A	N/A (N/A)	343.0779	N/A		N/A N/A	N/A	
	flunitrazepam	+	N/A	N/A (N/A)	314.0936	N/A		N/A N/A	N/A	
	flurazepam	+	N/A	N/A (N/A)	388.1586	N/A		N/A N/A	N/A	

b6 -1  
b7C -1

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## Exclusionary Screening by UPLC/FTMS

Batch: 20170929

Method: ExclusionSOP\_TargetingScreening

Inst. Method:

Acquired: 9/29/2017 10:05

Sample Type: Unknown

Vial Position: 2:A.5

Lab Name: FBI Laboratory

Assay: Exclusionary Screening TOX 215

Sample: sb

Comment: \_\_\_\_\_

File: 20170929\_02

Detected	Target Name	±/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	lorazepam	+	N/A	N/A (N/A)	321.0192	N/A		N/A N/A	N/A	
	lormetazepam	+	N/A	N/A (N/A)	335.0349	N/A		N/A N/A	N/A	
	medazepam	+	N/A	N/A (N/A)	271.0997	N/A		N/A N/A	N/A	
	midazolam	+	N/A	N/A (N/A)	326.0855	N/A		N/A N/A	N/A	
	nordiazepam	+	N/A	N/A (N/A)	271.0633	N/A		N/A N/A	N/A	
	oxazepam	+	N/A	N/A (N/A)	287.0582	N/A		N/A N/A	N/A	
	phenazepam	+	N/A	N/A (N/A)	348.9738	N/A		N/A N/A	N/A	
	prazepam	+	N/A	N/A (N/A)	325.1102	N/A		N/A N/A	N/A	
	temazepam	+	N/A	N/A (N/A)	301.0738	N/A		N/A N/A	N/A	
	tetrazepam	+	N/A	N/A (N/A)	289.1102	N/A		N/A N/A	N/A	
	triazolam	+	N/A	N/A (N/A)	343.0512	N/A		N/A N/A	N/A	
	6-acetylmorphine	+	N/A	N/A (N/A)	328.1543	N/A		N/A N/A	N/A	
	codeine	+	N/A	N/A (N/A)	300.1594	N/A		N/A N/A	N/A	
	dihydrocodeine	+	N/A	N/A (N/A)	302.1751	N/A		N/A N/A	N/A	
	dihydromorphone	+	N/A	N/A (N/A)	288.1594	N/A		N/A N/A	N/A	
	EDDP	+	N/A	N/A (N/A)	278.1903	N/A		N/A N/A	N/A	
	hydrocodone	+	N/A	N/A (N/A)	300.1594	N/A		N/A N/A	N/A	
	hydromorphone	+	N/A	N/A (N/A)	286.1438	N/A		N/A N/A	N/A	
	norcodeine	+	N/A	N/A (N/A)	286.1438	N/A		N/A N/A	N/A	
	normorphine	+	N/A	N/A (N/A)	272.1281	N/A		N/A N/A	N/A	
	noroxycodone	+	N/A	N/A (N/A)	302.1387	N/A		N/A N/A	N/A	
	oxycodone	+	N/A	N/A (N/A)	316.1543	N/A		N/A N/A	N/A	
	oxymorphone	+	N/A	N/A (N/A)	302.1387	N/A		N/A N/A	N/A	
	ecgonine methyl ester	+	N/A	N/A (N/A)	200.1281	N/A		N/A N/A	N/A	
	benzoylecgonine	+	N/A	N/A (N/A)	290.1387	N/A		N/A N/A	N/A	
	cocaethylene	+	N/A	N/A (N/A)	318.1700	N/A		N/A N/A	N/A	
	cocaine	+	N/A	N/A (N/A)	304.1543	N/A		N/A N/A	N/A	
	brompheniramine	+	N/A	N/A (N/A)	319.0804	N/A		N/A N/A	N/A	
	chlorpheniramine	+	N/A	N/A (N/A)	275.1310	N/A		N/A N/A	N/A	

b7E -2

b6 -1  
b7C -1

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## Exclusionary Screening by UPLC/FTMS

Batch: 20170929

Method: ExclusionSOP\_TargetingScreening

Inst. Method:

Acquired: 9/29/2017 10:05

Sample Type: Unknown

Vial Position 2:A,5

Lab Name: FBI Laboratory

Assay: Exclusionary Screening TOX 215

Sample \_\_\_\_\_ **sb**

Comment \_\_\_\_\_

File \_\_\_\_\_ 20170929\_02

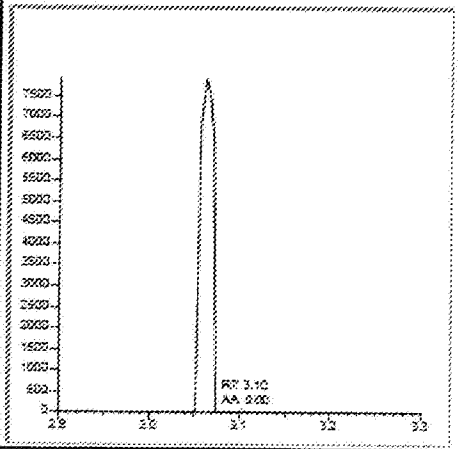
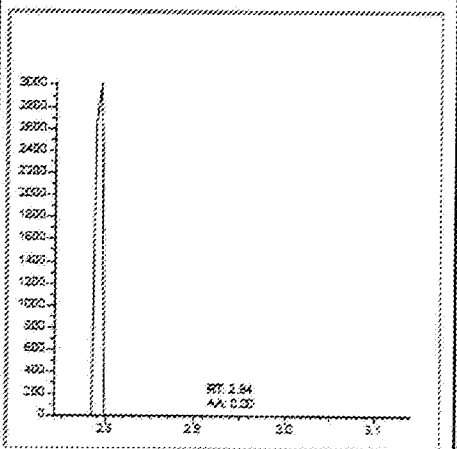
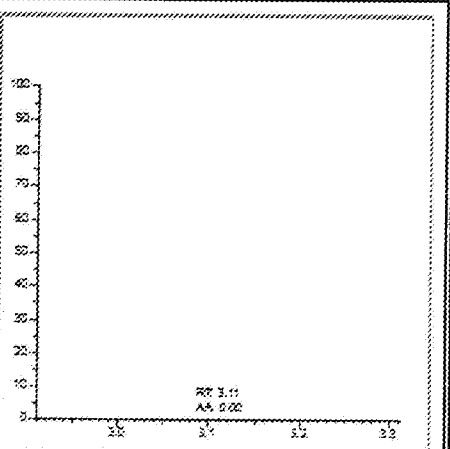
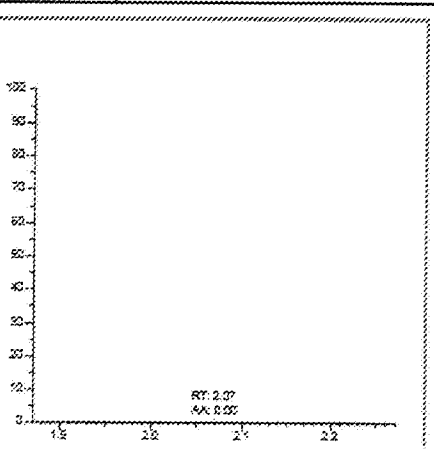
Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	dextromethorphan	+	N/A	N/A (N/A)	272.2009	N/A		N/A N/A	N/A	
	dextrorphan	+	N/A	N/A (N/A)	258.1852	N/A		N/A N/A	N/A	
	diphenhydramine	+	N/A	N/A (N/A)	256.1696	N/A		N/A N/A	N/A	
	doxylamine	+	N/A	N/A (N/A)	271.1805	N/A		N/A N/A	N/A	
	hydroxyzine	+	N/A	N/A (N/A)	375.1834	N/A		N/A N/A	N/A	
	norchlorcyclizine	+	N/A	N/A (N/A)	287.1310	N/A		N/A N/A	N/A	
	pheniramine	+	N/A	N/A (N/A)	241.1699	N/A		N/A N/A	N/A	
	tetrahydrozoline	+	N/A	N/A (N/A)	201.1386	N/A		N/A N/A	N/A	
	zaleplon	+	N/A	N/A (N/A)	306.1349	N/A		N/A N/A	N/A	
	zolpidem	+	N/A	N/A (N/A)	308.1757	N/A		N/A N/A	N/A	
	zopiclone	+	N/A	N/A (N/A)	389.1123	N/A		N/A N/A	N/A	
	duloxetine	+	N/A	N/A (N/A)	298.1260	N/A		N/A N/A	N/A	

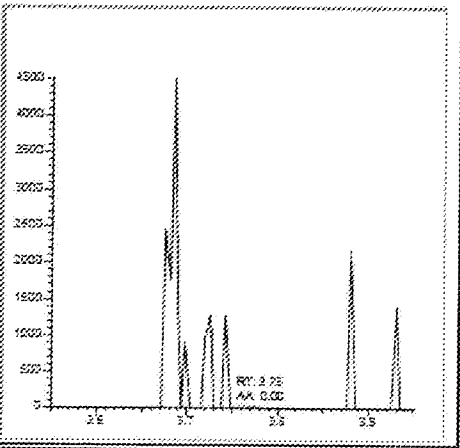
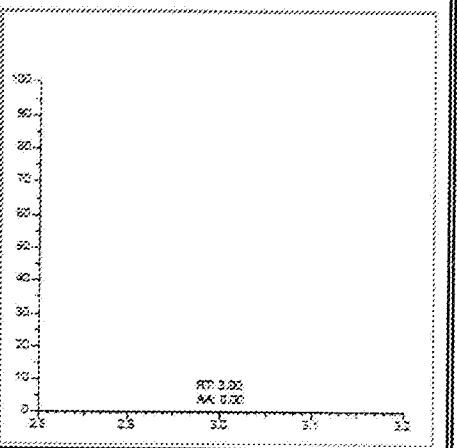
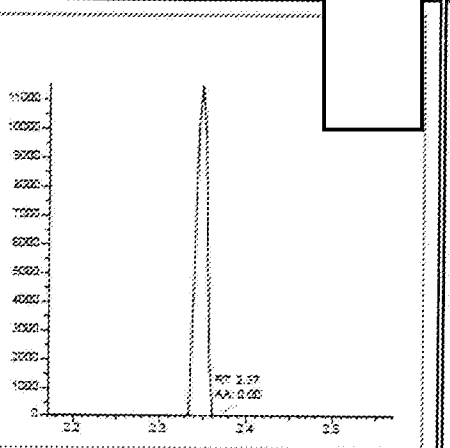
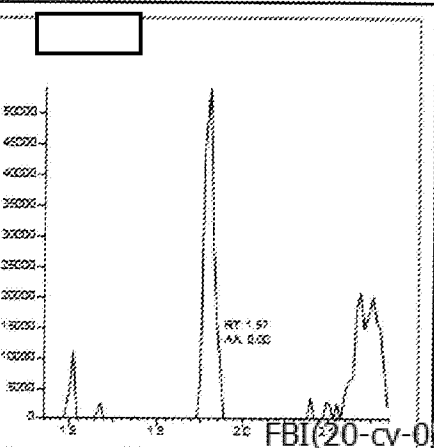
b7E -2

b6 -1  
b7C -1

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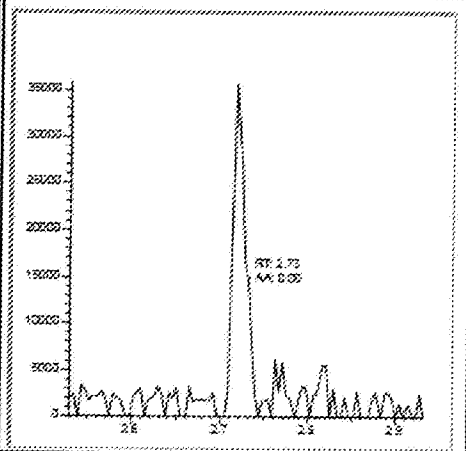
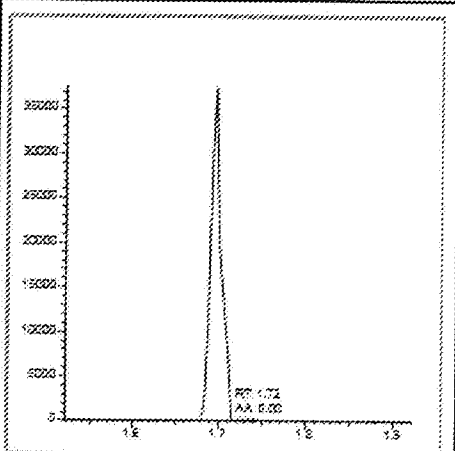
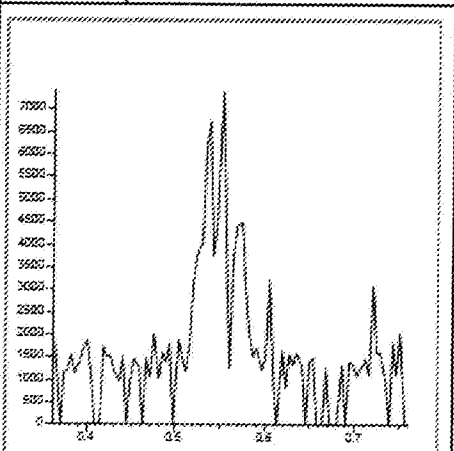
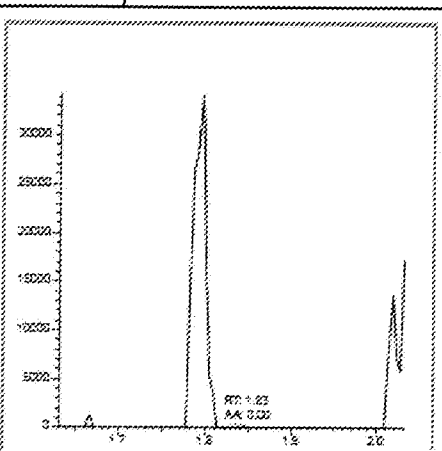
sb

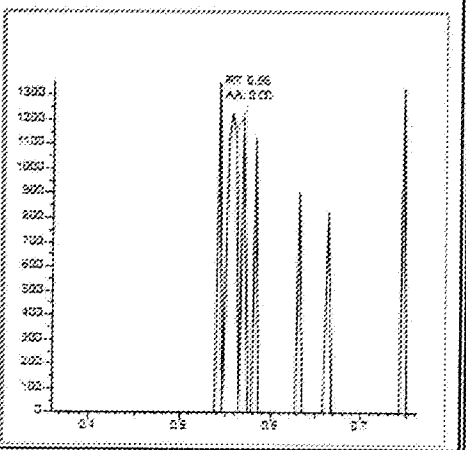
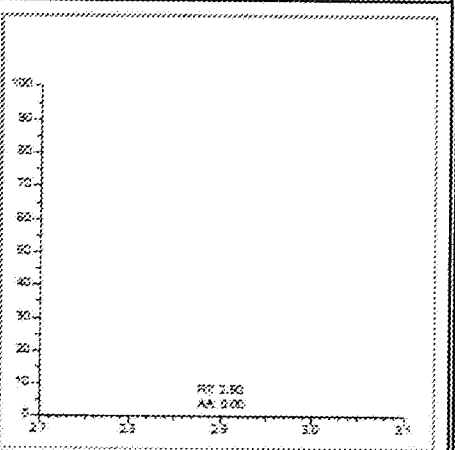
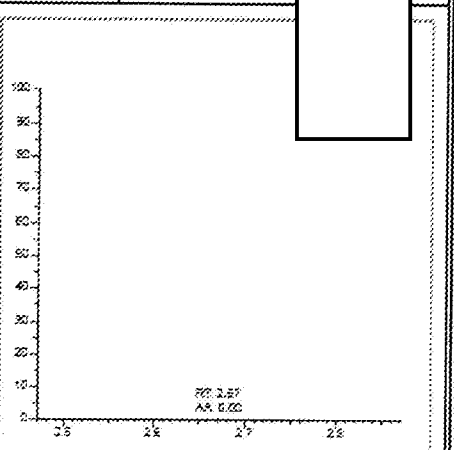
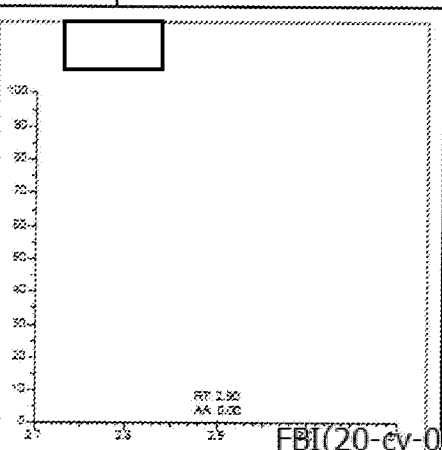
Compound:	<b>d5-alprazolam</b>	Compound:	<b>d5-hydroxalprazolam</b>	Compound:	<b>d4-clonazepam</b>	Compound:	<b>d4-7-aminoclonazepam</b>
RT(exp)	3.1	RT(exp)	2.94	RT(exp)	3.11	RT(exp)	2.07
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>d5-diazepam</b>	Compound:	<b>d5-oxazepam</b>	Compound:	<b>d6-zolpidem</b>	Compound:	<b>d3-benzoyllecgonine</b>
RT(exp)	3.75	RT(exp)	3	RT(exp)	2.37	RT(exp)	1.97
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

b6 -1  
 b7C -1

sb

Compound:	<b>d3-diphenhydramine</b>	Compound:	<b>d6-oxycodone</b>	Compound:	<b>d3-morphine</b>	Compound:	<b>d3-hydrocodone</b>
RT(exp)	2.73	RT(exp)	1.72	RT(exp)	0.56	RT(exp)	1.83
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>morphine</b>	Compound:	<b>hydroxylprazolam</b>	Compound:	<b>hydroxymidazolam</b>	Compound:	<b>hydroxytriazolam</b>
RT(exp)	0.56	RT(exp)	2.9	RT(exp)	2.67	RT(exp)	2.9
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

b6 -1  
 b7C -1

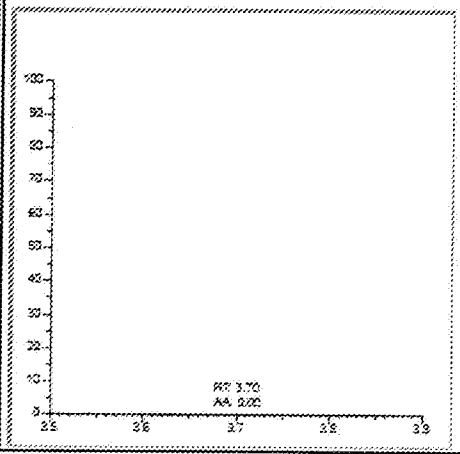
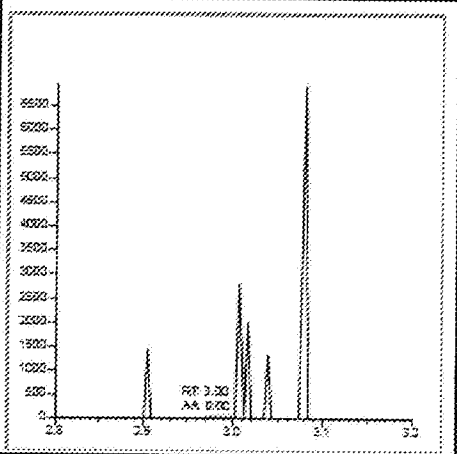
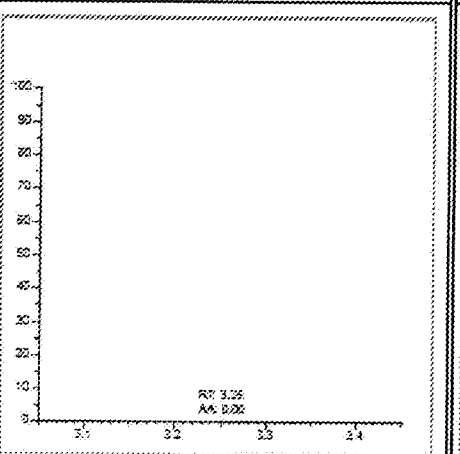
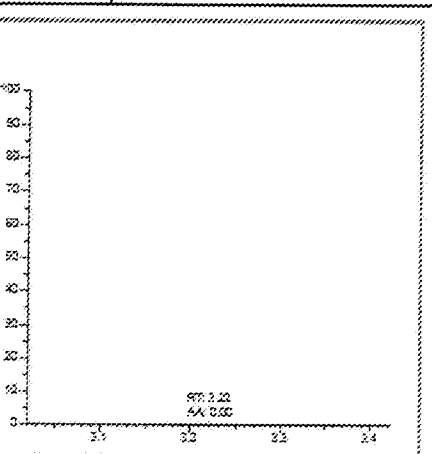
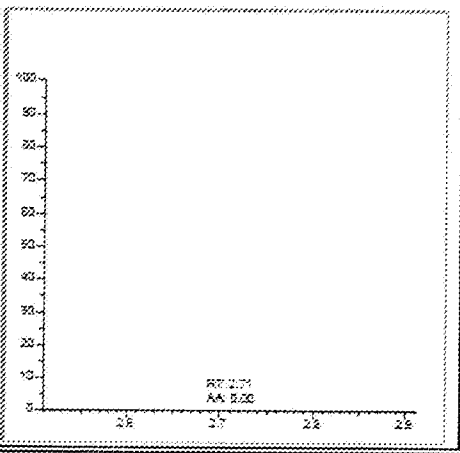
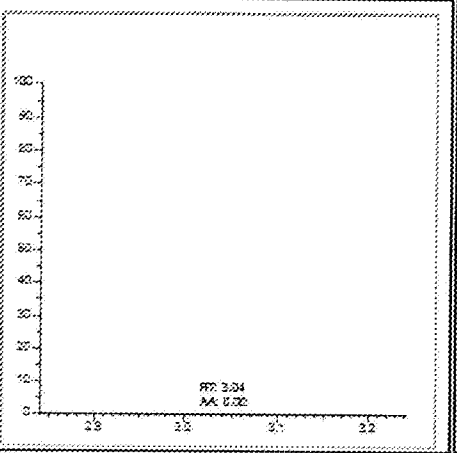
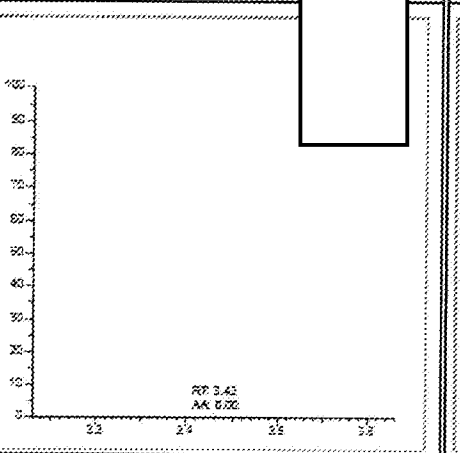
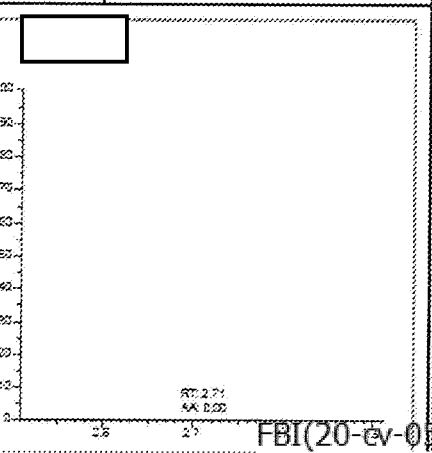


Compound:	<b>7-aminoclonazepam</b>	Compound:	<b>7-aminoflunitrazepam</b>	Compound:	<b>alprazolam</b>	Compound:	<b>bromazepam</b>
RT(exp)	2.07	RT(exp)	2.27	RT(exp)	3.1	RT(exp)	2.66
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A

Compound:	<b>chlordiazepoxide</b>	Compound:	<b>clonazepam</b>	Compound:	<b>desalkylflurazepam</b>	Compound:	<b>desmethylflunitrazepam</b>
RT(exp)	2.46	RT(exp)	3.07	RT(exp)	3.19	RT(exp)	2.95
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A

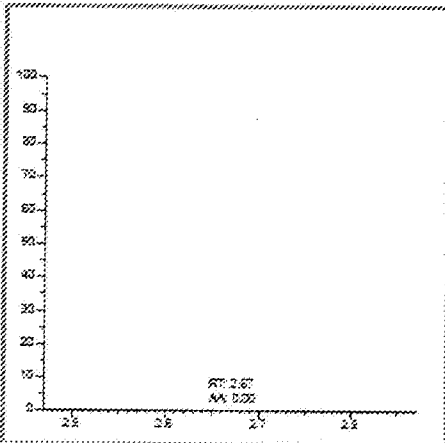
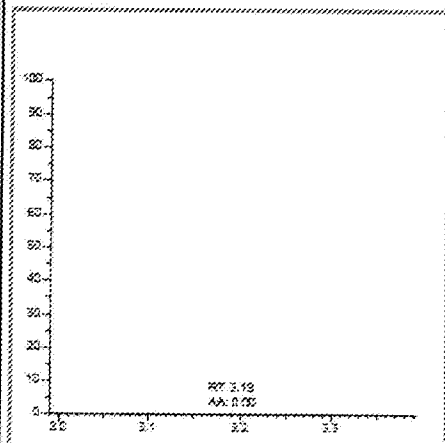
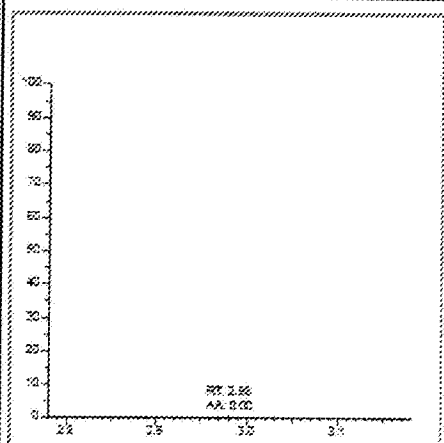
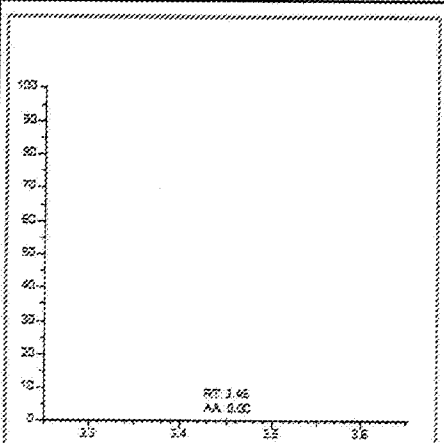
b6 -1  
 b7C -1

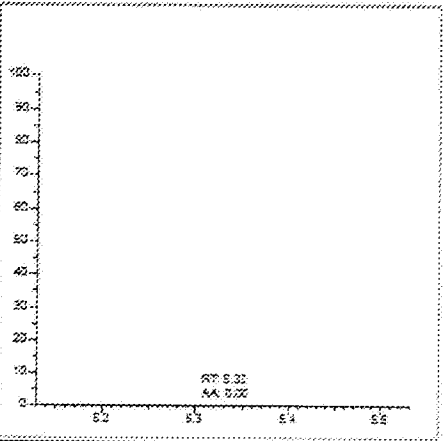
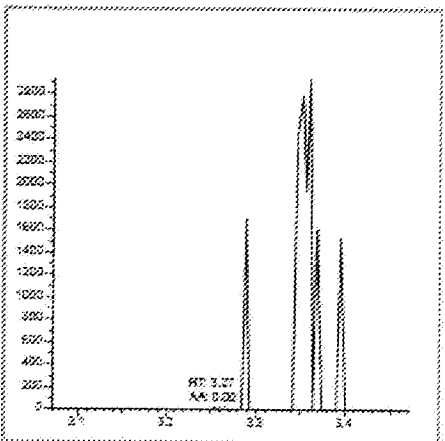
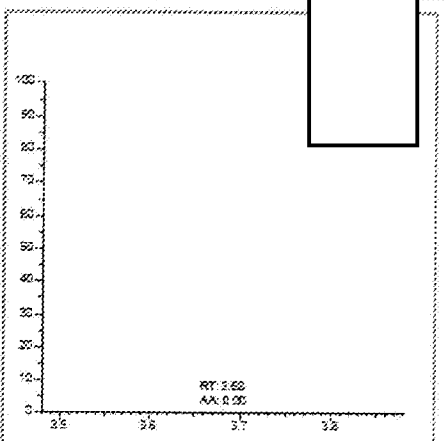
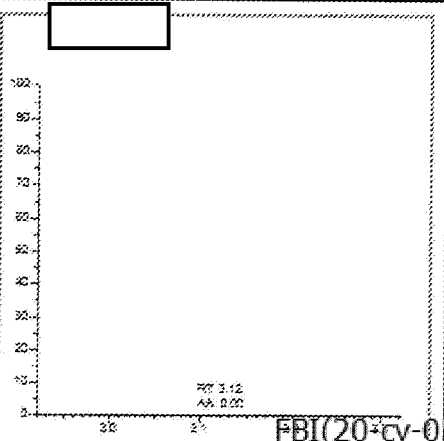
sb

Compound: <b>diazepam</b>	Compound: <b>estazolam</b>	Compound: <b>etizolam</b>	Compound: <b>flunitrazepam</b>
RT(exp) 3.7	RT(exp) 3	RT(exp) 3.25	RT(exp) 3.22
RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)
Area: N/A	Area: N/A	Area: N/A	Area: N/A
m/z:	m/z:	m/z:	m/z:
delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A
			
Compound: <b>flurazepam</b>	Compound: <b>lorazepam</b>	Compound: <b>lormetazepam</b>	Compound: <b>medazepam</b>
RT(exp) 2.71	RT(exp) 3.04	RT(exp) 3.43	RT(exp) 2.71
RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)
Area: N/A	Area: N/A	Area: N/A	Area: N/A
m/z:	m/z:	m/z:	m/z:
delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A
			

b6 -1  
b7C -1

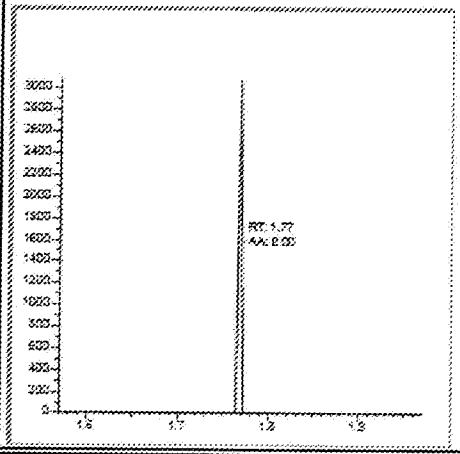
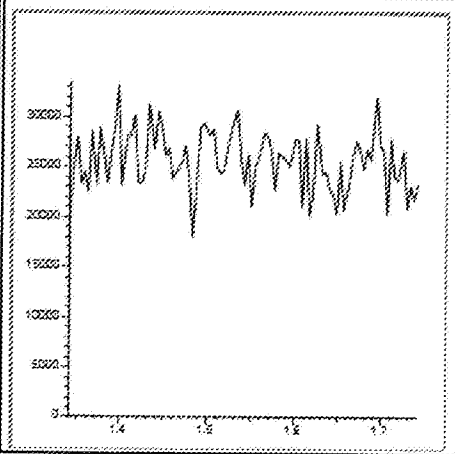
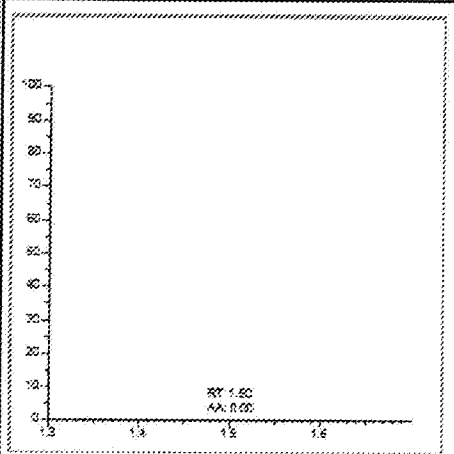
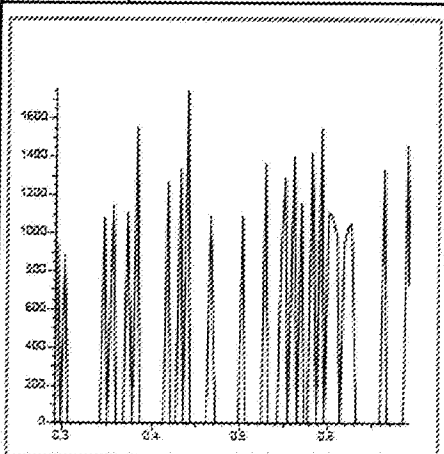
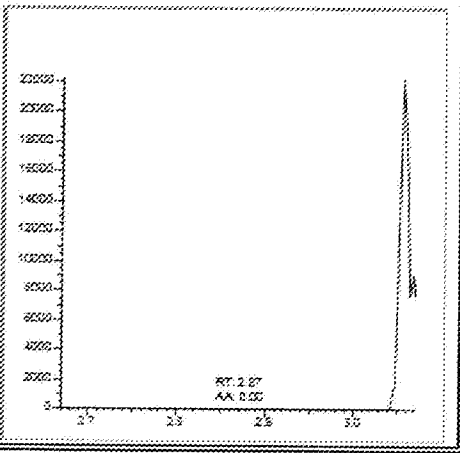
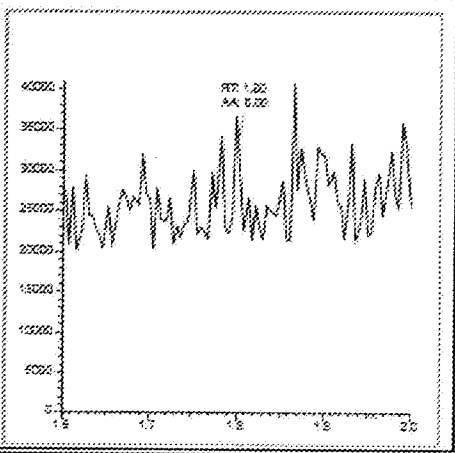
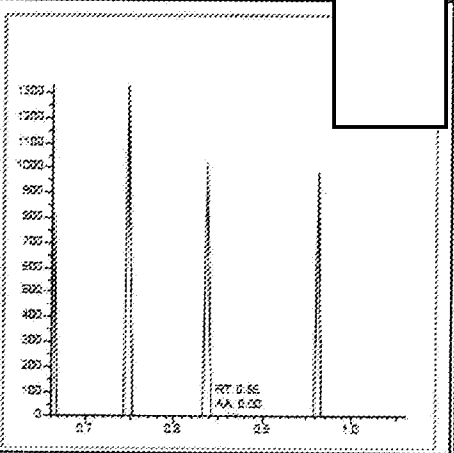
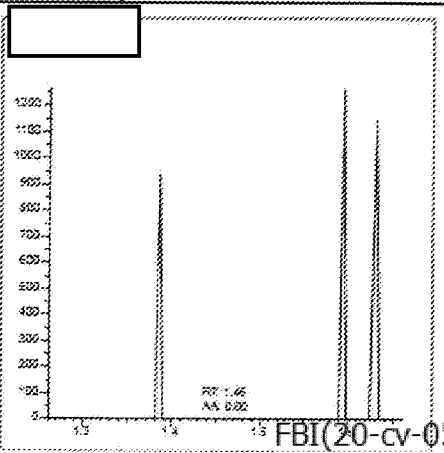
sb

Compound:	<b>midazolam</b>	Compound:	<b>nordiazepam</b>	Compound:	<b>oxazepam</b>	Compound:	<b>phenazepam</b>
RT(exp)	2.67	RT(exp)	3.19	RT(exp)	2.98	RT(exp)	3.45
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>prazepam</b>	Compound:	<b>temazepam</b>	Compound:	<b>tetrazepam</b>	Compound:	<b>triazolam</b>
RT(exp)	5.33	RT(exp)	3.27	RT(exp)	3.68	RT(exp)	3.12
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

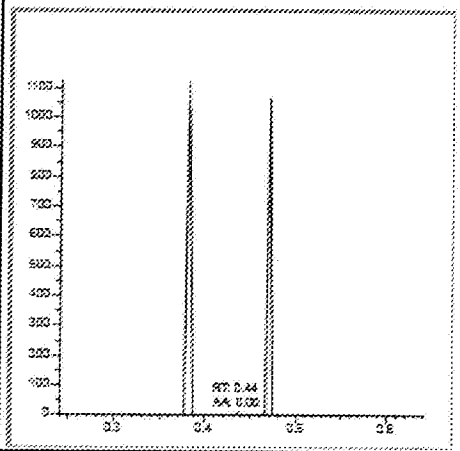
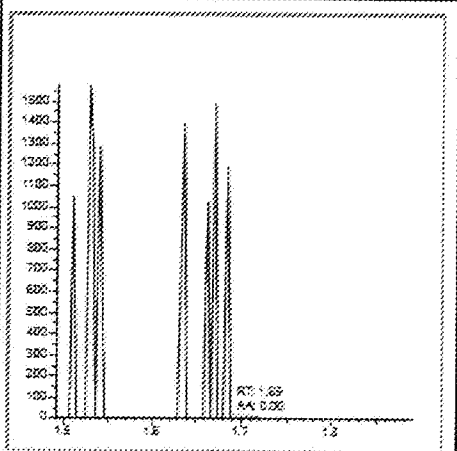
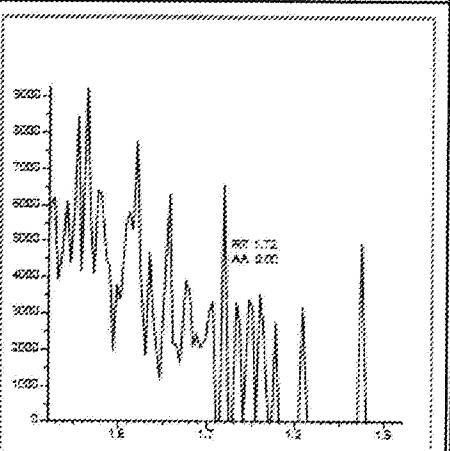
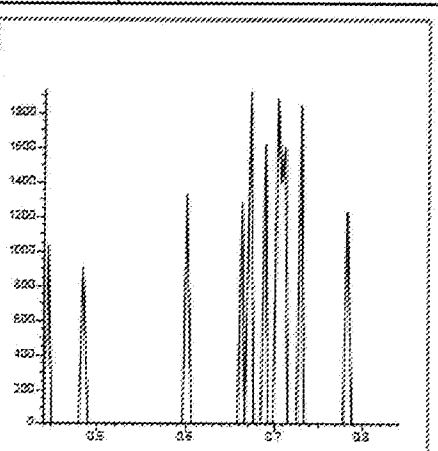
b6 -1  
b7C -1

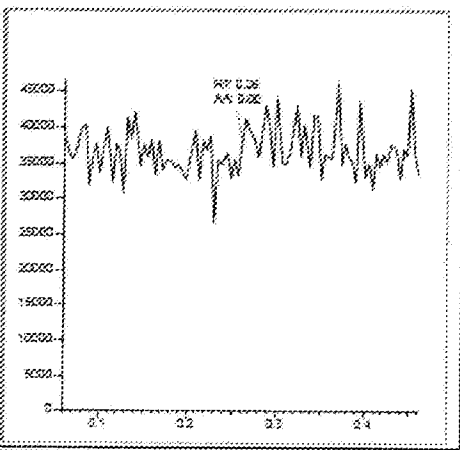
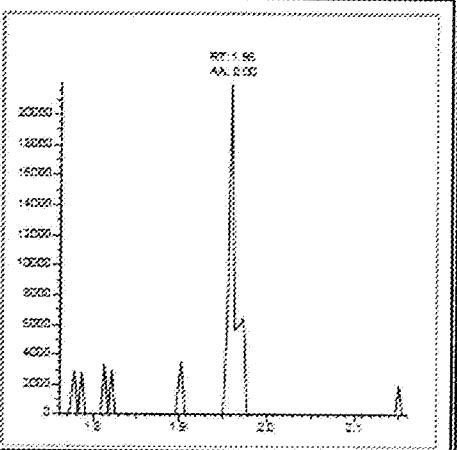
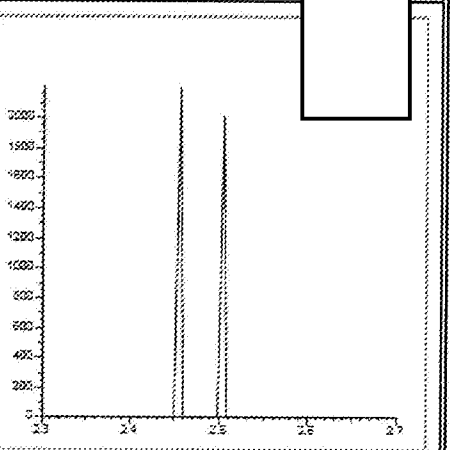
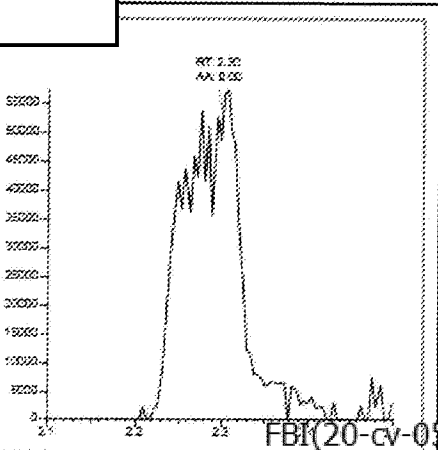
sb

Compound: <b>6-acetylmorphine</b>	Compound: <b>codeine</b>	Compound: <b>dihydrocodeine</b>	Compound: <b>dihydromorphine</b>
RT(exp) 1.77	RT(exp) 1.54	RT(exp) 1.5	RT(exp) 0.49
RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)
Area: N/A	Area: N/A	Area: N/A	Area: N/A
m/z:	m/z:	m/z:	m/z:
delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A
			
Compound: <b>EDDP</b>	Compound: <b>hydrocodone</b>	Compound: <b>hydromorphone</b>	Compound: <b>norcodeine</b>
RT(exp) 2.87	RT(exp) 1.8	RT(exp) 0.86	RT(exp) 1.46
RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)
Area: N/A	Area: N/A	Area: N/A	Area: N/A
m/z:	m/z:	m/z:	m/z:
delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A
			

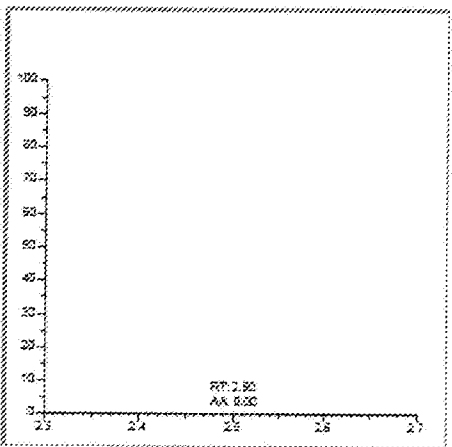
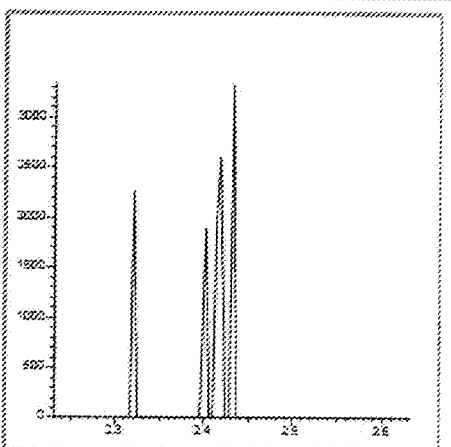
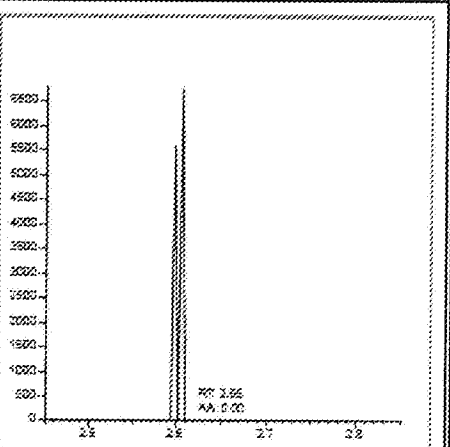
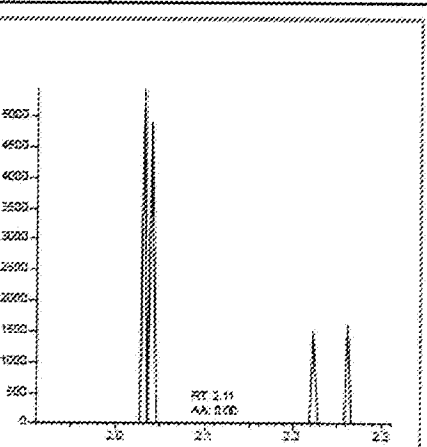
b6 -1  
 b7C -1

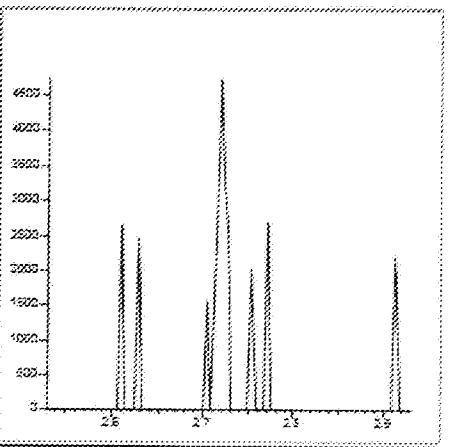
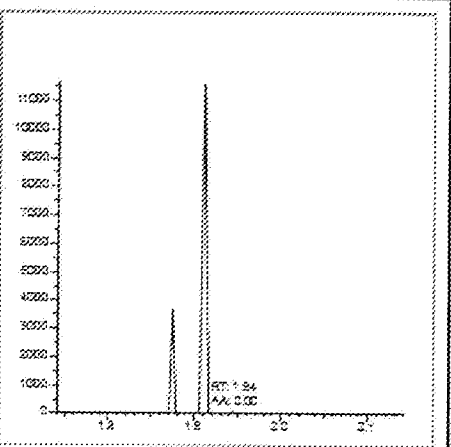
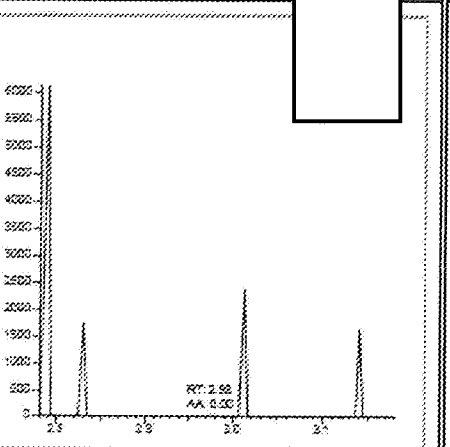
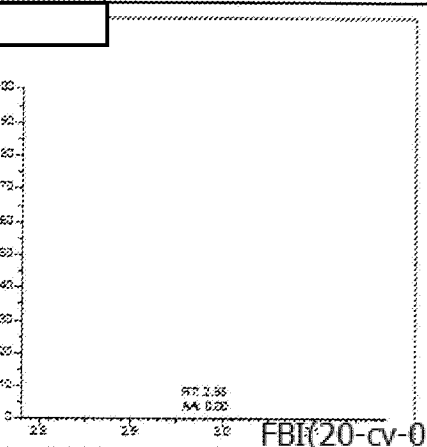
2017-00469 1027-2017

Compound:	<b>normorphine</b>	Compound:	<b>noroxycodone</b>	Compound:	<b>oxycodone</b>	Compound:	<b>oxymorphone</b>
RT(exp)	0.44	RT(exp)	1.69	RT(exp)	1.72	RT(exp)	0.64
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>ecgonine methyl ester</b>	Compound:	<b>benzoylecgonine</b>	Compound:	<b>cocaethylene</b>	Compound:	<b>cocaine</b>
RT(exp)	0.26	RT(exp)	1.96	RT(exp)	2.5	RT(exp)	2.3
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

b6 -1  
b7C -1

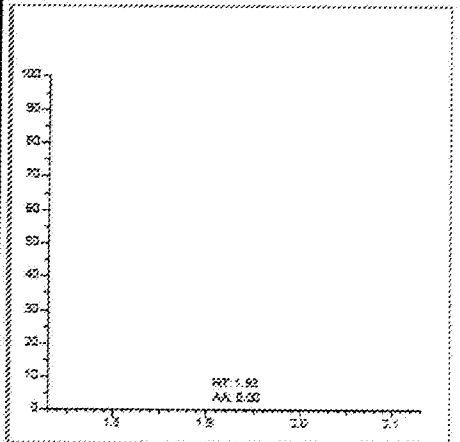
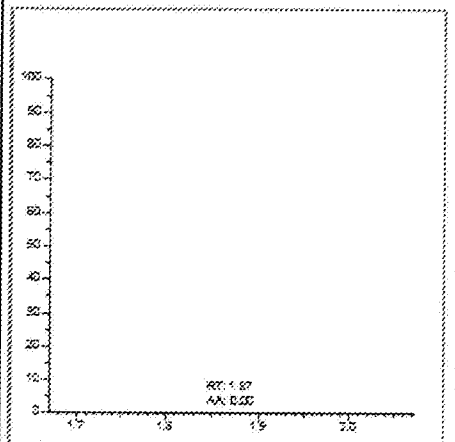
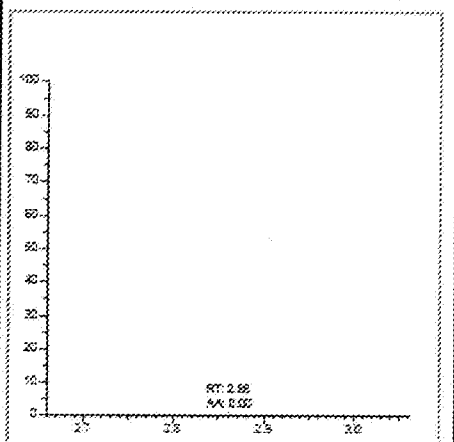
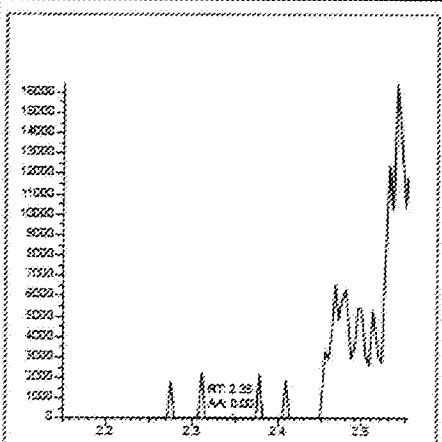
Compound:	<b>brompheniramine</b>	Compound:	<b>chlorpheniramine</b>	Compound:	<b>dextromethorphan</b>	Compound:	<b>dextrorphan</b>
RT(exp)	2.5	RT(exp)	2.43	RT(exp)	2.65	RT(exp)	2.11
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

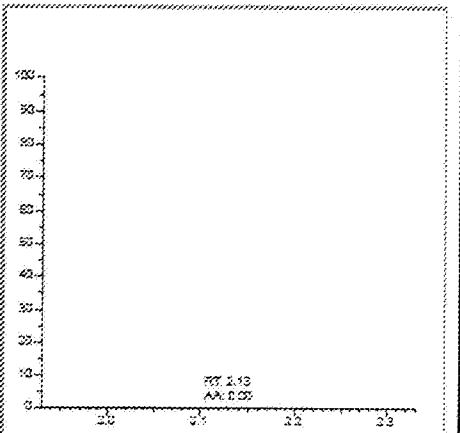
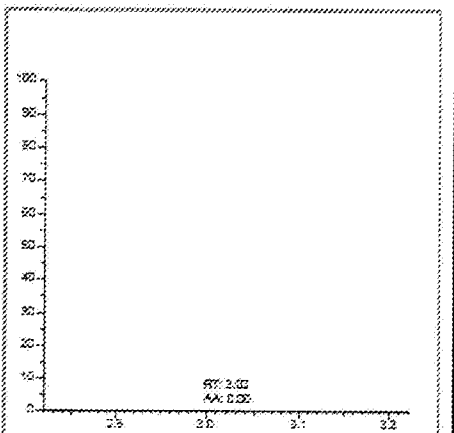
Compound:	<b>diphenhydramine</b>	Compound:	<b>doxylamine</b>	Compound:	<b>hydroxyzine</b>	Compound:	<b>norchlorcyclizine</b>
RT(exp)	2.73	RT(exp)	1.94	RT(exp)	2.98	RT(exp)	2.98
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

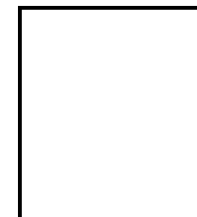
b6 -1  
 b7C -1

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sb

Compound:	<b>pheniramine</b>	Compound:	<b>tetrahydrozoline</b>	Compound:	<b>zaleplon</b>	Compound:	<b>zolpidem</b>
RT(exp)	1.93	RT(exp)	1.87	RT(exp)	2.86	RT(exp)	2.35
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>zopiclone</b>	Compound:	<b>duloxetine</b>
RT(exp)	2.13	RT(exp)	3.02
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A
m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A
			



b6 -1  
 b7C -1

## Exclusionary Screening by UPLC/FTMS

Batch: 20170928  
 Method: ExclusionSOP\_TargetingScreening  
 Inst. Method:  
 Acquired: 9/29/2017 4:45  
 Sample Type: Unknown  
 Vial Position: 2:B,1

Lab Name: FBI Laboratory  
 Assay: Exclusionary Screening TOX 215

Sample: 2017-00469, 5, urine  
 Comment:  
 File: 20170928\_62

b7E -2

Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	d5-alprazolam	+	N/A	N/A (N/A)	314.1215	N/A	N/A	N/A	N/A	
●	d5-hydroxalprazolam	+	3.00E+06	2.9 (-0.04)	330.1165	330.1170	0.58	100.00	5 of 5	
●	d4-clonazepam	+	6.95E+05	3.07 (-0.04)	320.0735	320.0737	0.28	99.00	3 of 4	
●	d4-7-aminoclonazepam	+	1.36E+06	2.05 (-0.02)	290.0993	290.0999	0.61	76.00	3 of 4	
	d5-diazepam	+	N/A	N/A (N/A)	290.1103	N/A	N/A	N/A	N/A	
●	d5-oxazepam	+	1.47E+06	2.98 (-0.02)	292.0896	292.0902	0.61	100.00	4 of 5	
●	d6-zolpidem	+	9.52E+06	2.35 (-0.02)	314.2134	314.2138	0.38	100.00	3 of 3	
●	d3-benzoyllecgonine	+	2.91E+07	1.96 (-0.01)	293.1575	293.1581	0.57	100.00	3 of 4	
●	d3-diphenhydramine	+	9.65E+06	2.73 (0)	259.1884	259.1889	0.48	100.00	3 of 3	
●	d6-oxycodone	+	1.12E+07	1.69 (-0.03)	322.1920	322.1925	0.47	100.00	3 of 3	
	d3-morphine	+	N/A	N/A (N/A)	289.1626	N/A	N/A	N/A	N/A	
●	d3-hydrocodone	+	4.39E+06	1.79 (-0.04)	303.1783	303.1783	0.09	100.00	2 of 2	
	morphine	+	N/A	N/A (N/A)	286.1438	N/A	N/A	N/A	N/A	
	hydroxalprazolam	+	N/A	N/A (N/A)	325.0851	N/A	N/A	N/A	N/A	
	hydroxymidazolam	+	N/A	N/A (N/A)	342.0804	N/A	N/A	N/A	N/A	
	hydroxytriazolam	+	N/A	N/A (N/A)	359.0461	N/A	N/A	N/A	N/A	
	7-aminoclonazepam	+	N/A	N/A (N/A)	286.0742	N/A	N/A	N/A	N/A	
	7-aminoflunitrazepam	+	N/A	N/A (N/A)	284.1194	N/A	N/A	N/A	N/A	
	alprazolam	+	N/A	N/A (N/A)	309.0902	N/A	N/A	N/A	N/A	
	bromazepam	+	N/A	N/A (N/A)	316.0080	N/A	N/A	N/A	N/A	
	chlordiazepoxide	+	N/A	N/A (N/A)	300.0898	N/A	N/A	N/A	N/A	
	clonazepam	+	N/A	N/A (N/A)	316.0484	N/A	N/A	N/A	N/A	
	desalkylflurazepam	+	N/A	N/A (N/A)	289.0539	N/A	N/A	N/A	N/A	
	desmethylflunitrazepam	+	N/A	N/A (N/A)	300.0779	N/A	N/A	N/A	N/A	
	diazepam	+	N/A	N/A (N/A)	285.0789	N/A	N/A	N/A	N/A	
	estazolam	+	N/A	N/A (N/A)	295.0745	N/A	N/A	N/A	N/A	
	etizolam	+	N/A	N/A (N/A)	343.0779	N/A	N/A	N/A	N/A	
	flunitrazepam	+	N/A	N/A (N/A)	314.0936	N/A	N/A	N/A	N/A	
	flurazepam	+	N/A	N/A (N/A)	388.1586	N/A	N/A	N/A	N/A	

b6 -1  
 b7C -1

2017-00469 1027-2017



## Exclusionary Screening by UPLC/FTMS

Batch: 20170928  
 Method: ExclusionSOP\_TargetingScreening  
 Inst. Method:  
 Acquired: 9/29/2017 4:45  
 Sample Type: Unknown  
 Vial Position: 2:B.1

Lab Name: FBI Laboratory  
 Assay: Exclusionary Screening TOX 215

Sample: 2017-00469, 5, urine  
 Comment:  
 File: 20170928\_62

b7E -2

Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	lorazepam	+	N/A	N/A (N/A)	321.0192	N/A		N/A N/A	N/A	
	lormetazepam	+	N/A	N/A (N/A)	335.0349	N/A		N/A N/A	N/A	
	medazepam	+	N/A	N/A (N/A)	271.0997	N/A		N/A N/A	N/A	
	midazolam	+	N/A	N/A (N/A)	326.0855	N/A		N/A N/A	N/A	
	nordiazepam	+	N/A	N/A (N/A)	271.0633	N/A		N/A N/A	N/A	
	oxazepam	+	N/A	N/A (N/A)	287.0582	N/A		N/A N/A	N/A	
	phenazepam	+	N/A	N/A (N/A)	348.9738	N/A		N/A N/A	N/A	
	prazepam	+	N/A	N/A (N/A)	325.1102	N/A		N/A N/A	N/A	
	temazepam	+	N/A	N/A (N/A)	301.0738	N/A		N/A N/A	N/A	
	tetrazepam	+	N/A	N/A (N/A)	289.1102	N/A		N/A N/A	N/A	
	triazolam	+	N/A	N/A (N/A)	343.0512	N/A		N/A N/A	N/A	
	6-acetylmorphine	+	N/A	N/A (N/A)	328.1543	N/A		N/A N/A	N/A	
	codeine	+	N/A	N/A (N/A)	300.1594	N/A		N/A N/A	N/A	
	dihydrocodeine	+	N/A	N/A (N/A)	302.1751	N/A		N/A N/A	N/A	
	dihydromorphone	+	N/A	N/A (N/A)	288.1594	N/A		N/A N/A	N/A	
	EDDP	+	N/A	N/A (N/A)	278.1903	N/A		N/A N/A	N/A	
	hydrocodone	+	N/A	N/A (N/A)	300.1594	N/A		N/A N/A	N/A	
	hydromorphone	+	N/A	N/A (N/A)	286.1438	N/A		N/A N/A	N/A	
	norcodeine	+	N/A	N/A (N/A)	286.1438	N/A		N/A N/A	N/A	
	normorphine	+	N/A	N/A (N/A)	272.1281	N/A		N/A N/A	N/A	
	noroxycodone	+	N/A	N/A (N/A)	302.1387	N/A		N/A N/A	N/A	
	oxycodone	+	N/A	N/A (N/A)	316.1543	N/A		N/A N/A	N/A	
	oxymorphone	+	N/A	N/A (N/A)	302.1387	N/A		N/A N/A	N/A	
	ecgonine methyl ester	+	N/A	N/A (N/A)	200.1281	N/A		N/A N/A	N/A	
	benzoylecgonine	+	N/A	N/A (N/A)	290.1387	N/A		N/A N/A	N/A	
	cocaethylene	+	N/A	N/A (N/A)	318.1700	N/A		N/A N/A	N/A	
	cocaine	+	4.68E+06	2.31 (0.01)	304.1543	304.1550	0.67	100.00	3 of 3	n.d.
	brompheniramine	+	N/A	N/A (N/A)	319.0804	N/A		N/A N/A	N/A	
	chlorpheniramine	+	N/A	N/A (N/A)	275.1310	N/A		N/A N/A	N/A	

b6 -1  
b7C -1

2017-00469 1027-2017

## Exclusionary Screening by UPLC/FTMS

Batch: 20170928  
 Method: ExclusionSOP\_TargetingScreening  
 Inst. Method:  
 Acquired: 9/29/2017 4:45  
 Sample Type: Unknown  
 Vial Position: 2:B.1

Lab Name: FBI Laboratory  
 Array: Exclusionary Screening TOX 215

Sample: 2017-00469, 5, urine  
 Comment:  
 File: 20170928\_62

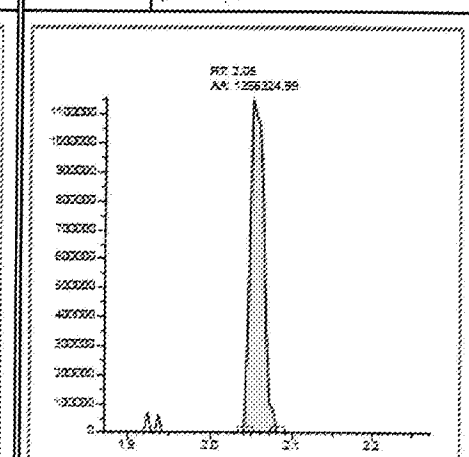
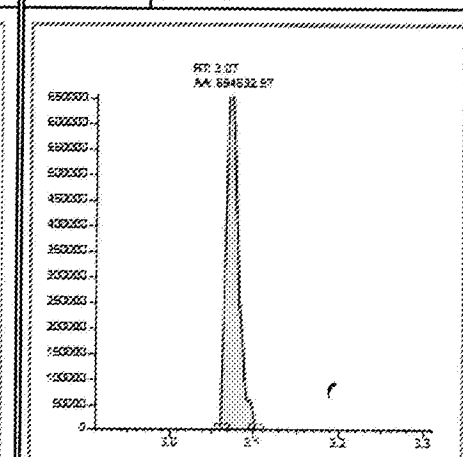
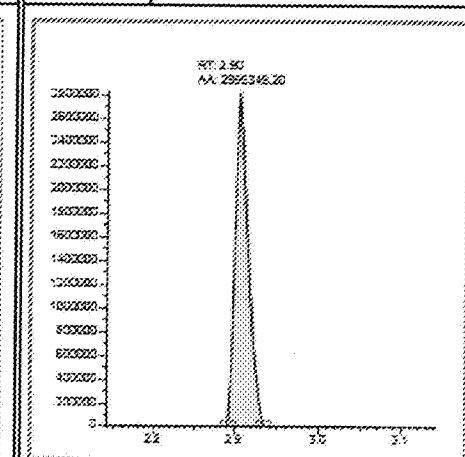
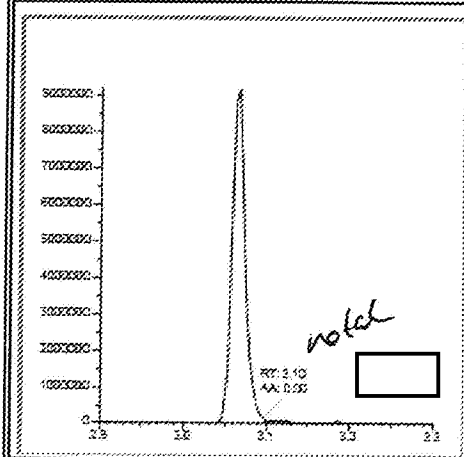
Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	dextromethorphan	+	N/A	N/A (N/A)	272.2009	N/A		N/A N/A	N/A	
	dextrorphan	+	N/A	N/A (N/A)	258.1852	N/A		N/A N/A	N/A	
	diphenhydramine	+	N/A	N/A (N/A)	256.1696	N/A		N/A N/A	N/A	
	doxylamine	+	N/A	N/A (N/A)	271.1805	N/A		N/A N/A	N/A	
	hydroxyzine	+	N/A	N/A (N/A)	375.1834	N/A		N/A N/A	N/A	
	norchlorcyclizine	+	N/A	N/A (N/A)	287.1310	N/A		N/A N/A	N/A	
	pheniramine	+	N/A	N/A (N/A)	241.1699	N/A		N/A N/A	N/A	
●	tetrahydrozoline	+	2.99E+06	1.9 (0.03)	201.1386	201.1391	0.42	98.00	2 of 4	u-d. [redacted]
	zaleplon	+	N/A	N/A (N/A)	306.1349	N/A		N/A N/A	N/A	
	zolpidem	+	N/A	N/A (N/A)	308.1757	N/A		N/A N/A	N/A	
	zopiclone	+	N/A	N/A (N/A)	389.1123	N/A		N/A N/A	N/A	
	duloxetine	+	N/A	N/A (N/A)	298.1260	N/A		N/A N/A	N/A	[redacted]

b7E -2

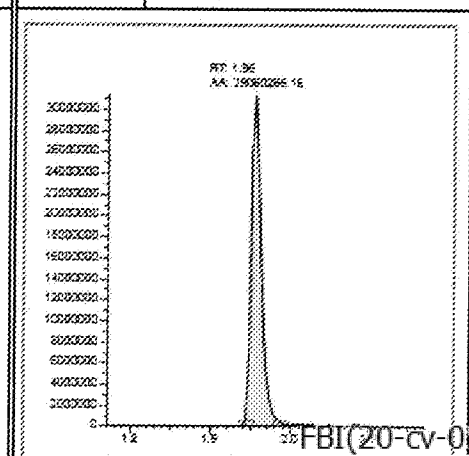
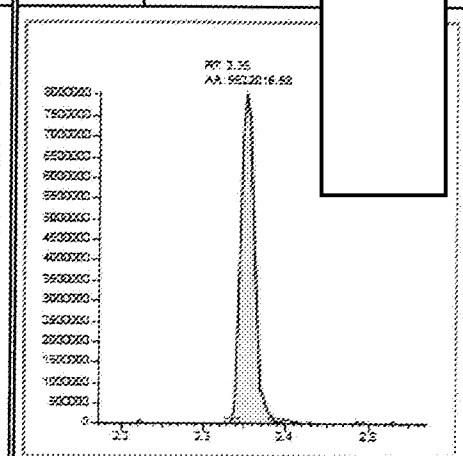
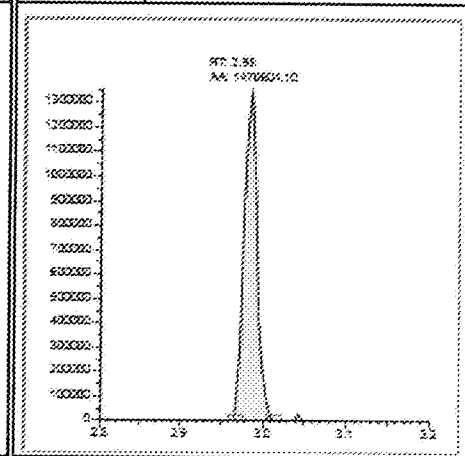
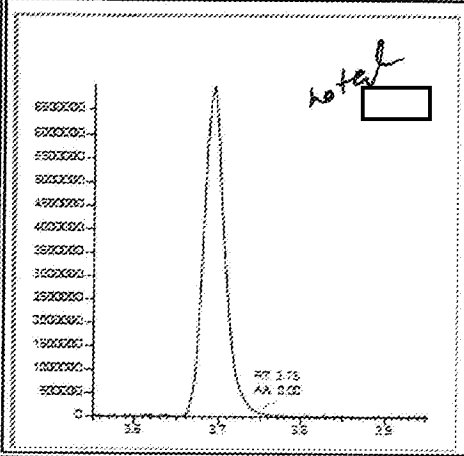
b6 -1  
 b7C -1

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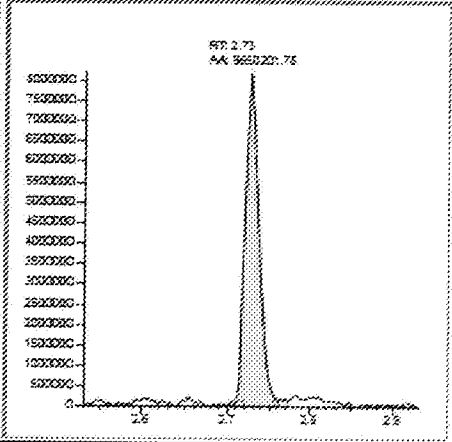
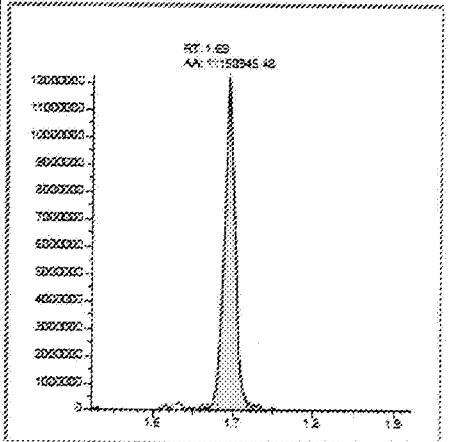
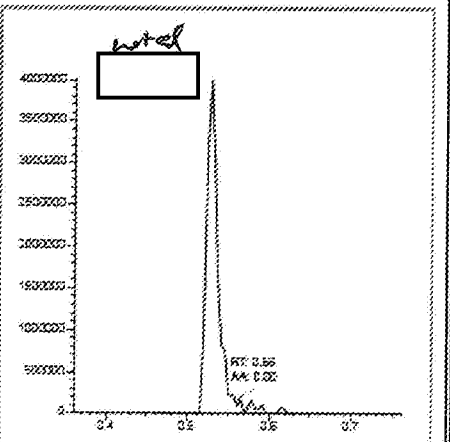
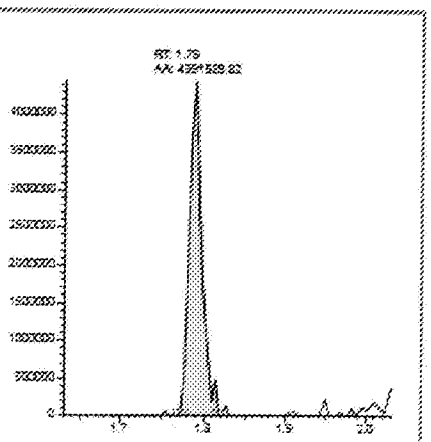
Compound:	<b>d5-alprazolam</b>	Compound:	<b>d5-hydroxalprazolam</b>	Compound:	<b>d4-clonazepam</b>	Compound:	<b>d4-7-aminoclonazepam</b>
RT(exp)	3.1	RT(exp)	2.94	RT(exp)	3.11	RT(exp)	2.07
RT(delta)	N/A (N/A)	RT(delta)	2.9 (-0.04)	RT(delta)	3.07 (-0.04)	RT(delta)	2.05 (-0.02)
Area:	N/A	Area:	2995300	Area:	694530	Area:	1356300
m/z:		m/z:	330.1170	m/z:	320.0737	m/z:	290.0999
delta	(mmu): N/A	delta	(mmu): 0.58	delta	(mmu): 0.28	delta	(mmu): 0.61



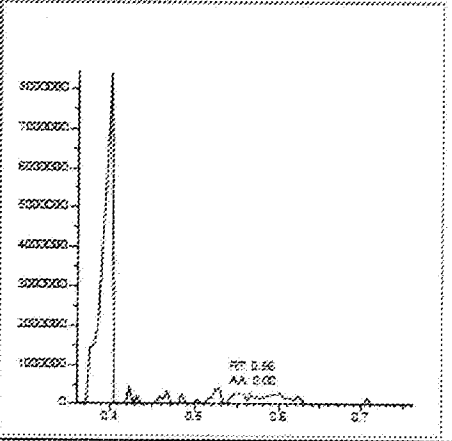
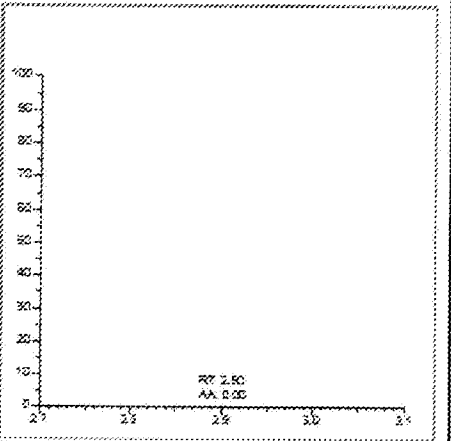
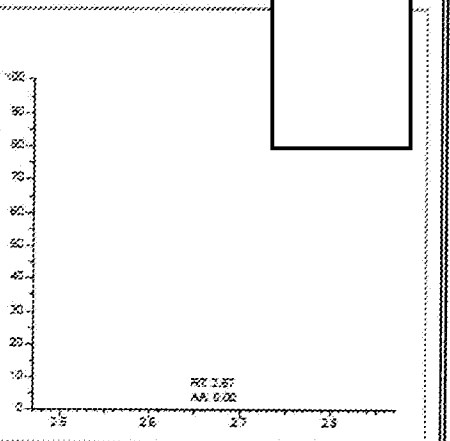
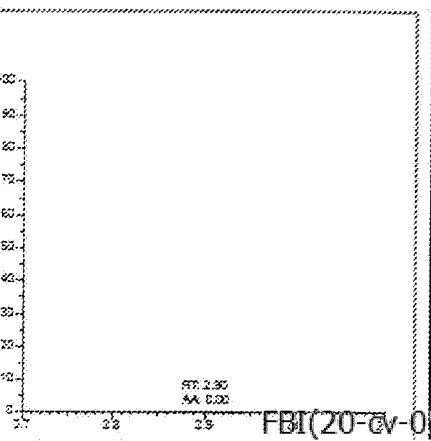
Compound:	<b>d5-diazepam</b>	Compound:	<b>d5-oxazepam</b>	Compound:	<b>d6-zolpidem</b>	Compound:	<b>d3-benzoyllecgonine</b>
RT(exp)	3.75	RT(exp)	3	RT(exp)	2.37	RT(exp)	1.97
RT(delta)	N/A (N/A)	RT(delta)	2.98 (-0.02)	RT(delta)	2.35 (-0.02)	RT(delta)	1.96 (-0.01)
Area:	N/A	Area:	1470600	Area:	9522000	Area:	29060000
m/z:		m/z:	292.0902	m/z:	314.2138	m/z:	293.1581
delta	(mmu): N/A	delta	(mmu): 0.61	delta	(mmu): 0.38	delta	(mmu): 0.57



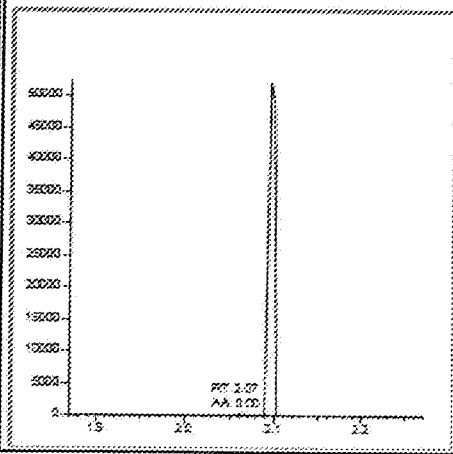
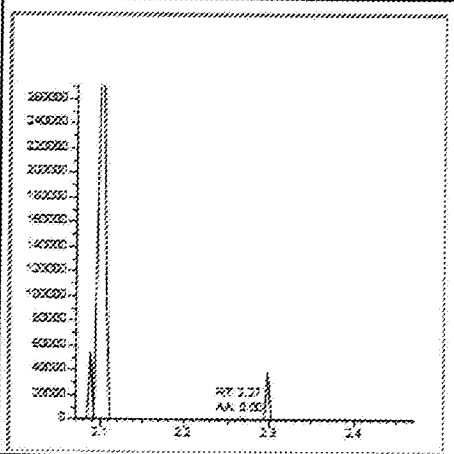
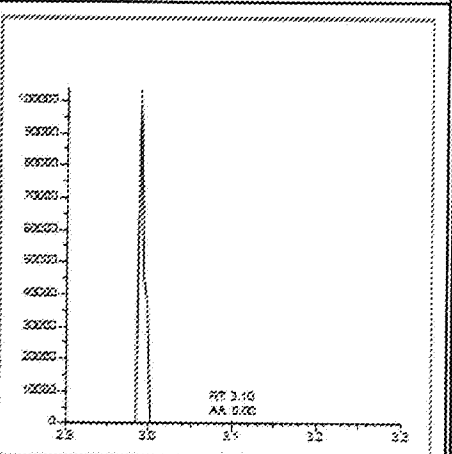
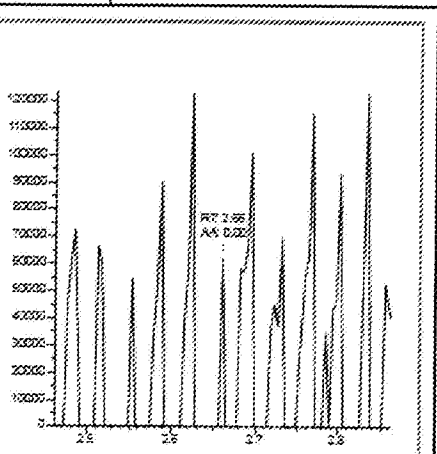
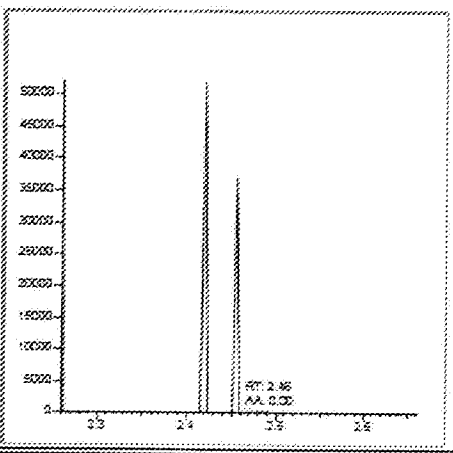
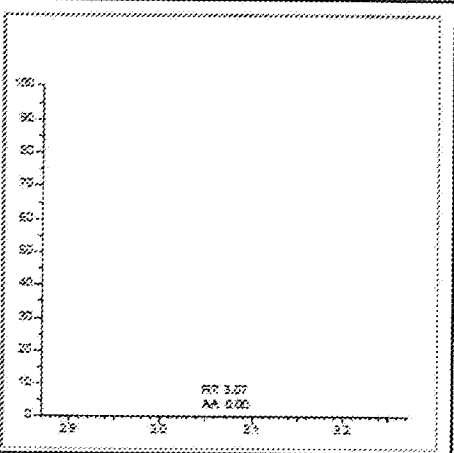
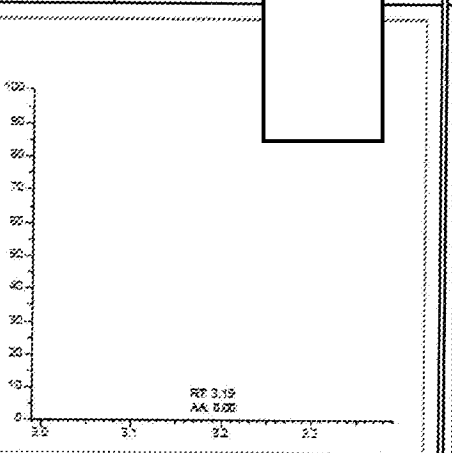
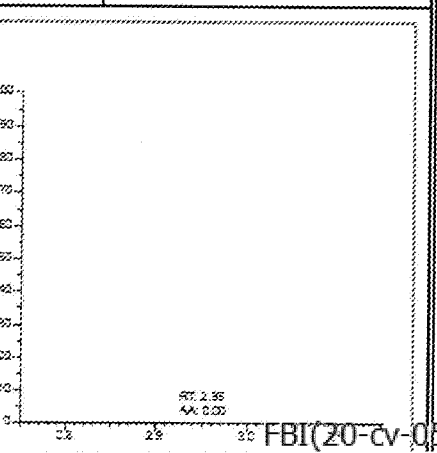
b6 -1  
 b7C -1

Compound:	<b>d3-diphenhydramine</b>	Compound:	<b>d6-oxycodone</b>	Compound:	<b>d3-morphine</b>	Compound:	<b>d3-hydrocodone</b>
RT(exp)	2.73	RT(exp)	1.72	RT(exp)	0.56	RT(exp)	1.83
RT(delta)	2.73 (0)	RT(delta)	1.69 (-0.03)	RT(delta)	N/A (N/A)	RT(delta)	1.79 (-0.04)
Area:	9650200	Area:	11151000	Area:	N/A	Area:	4391600
m/z:	259.1889	m/z:	322.1925	m/z:		m/z:	303.1783
delta	(mmu): 0.48	delta	(mmu): 0.47	delta	(mmu): N/A	delta	(mmu): 0.09
							

b6 -1  
 b7C -1

Compound:	<b>morphine</b>	Compound:	<b>hydroxyalprazolam</b>	Compound:	<b>hydroxymidazolam</b>	Compound:	<b>hydroxytriazolam</b>
RT(exp)	0.56	RT(exp)	2.9	RT(exp)	2.67	RT(exp)	2.9
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

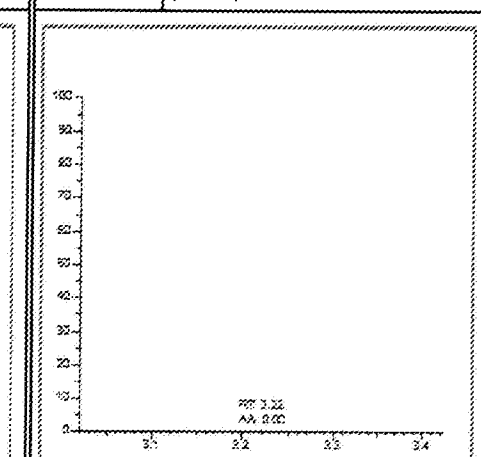
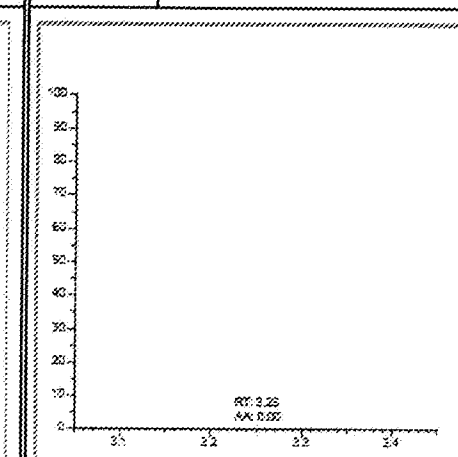
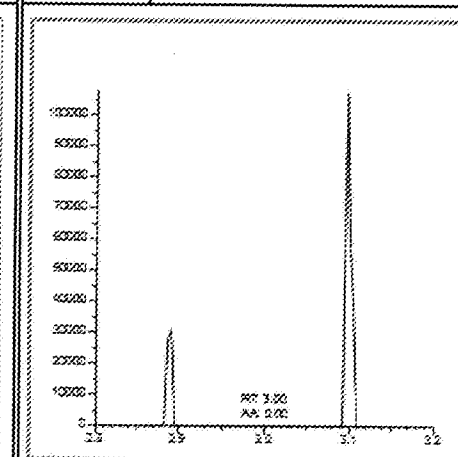
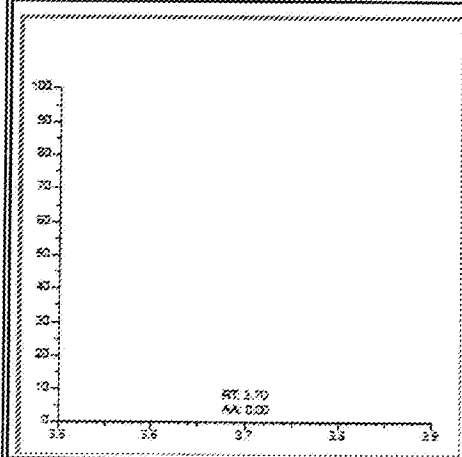
2017-00469, 5, urine

Compound: <b>7-aminoclonazepam</b>	Compound: <b>7-aminoflunitrazepam</b>	Compound: <b>alprazolam</b>	Compound: <b>bromazepam</b>
RT(exp) 2.07	RT(exp) 2.27	RT(exp) 3.1	RT(exp) 2.66
RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)
Area: N/A	Area: N/A	Area: N/A	Area: N/A
m/z:	m/z:	m/z:	m/z:
delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A
			
Compound: <b>chlordiazepoxide</b>	Compound: <b>clonazepam</b>	Compound: <b>desalkylflurazepam</b>	Compound: <b>desmethyflunitrazepam</b>
RT(exp) 2.46	RT(exp) 3.07	RT(exp) 3.19	RT(exp) 2.95
RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)
Area: N/A	Area: N/A	Area: N/A	Area: N/A
m/z:	m/z:	m/z:	m/z:
delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A
			

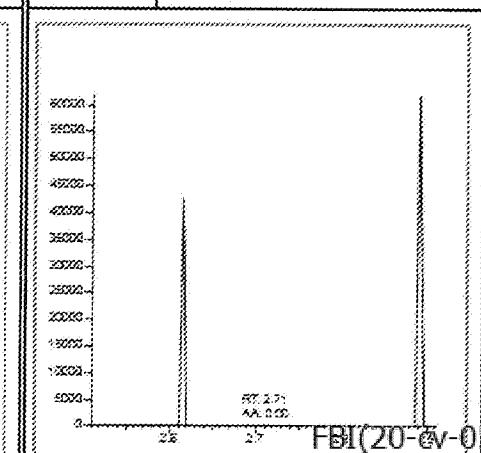
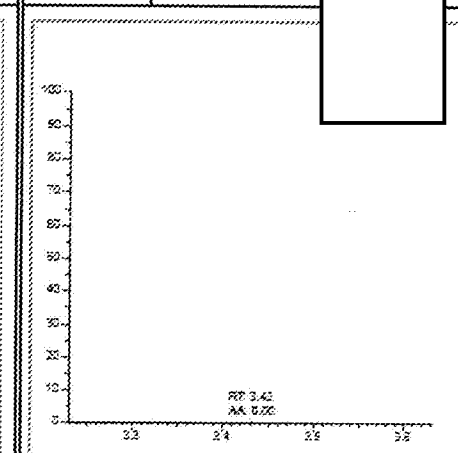
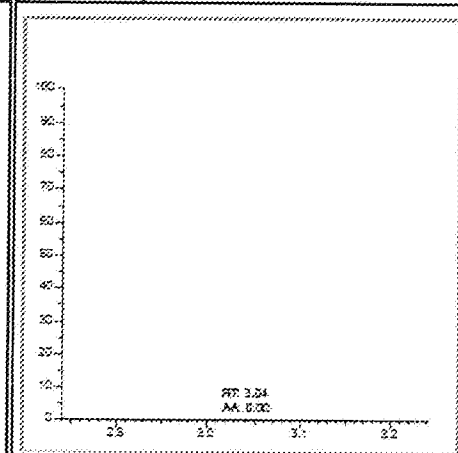
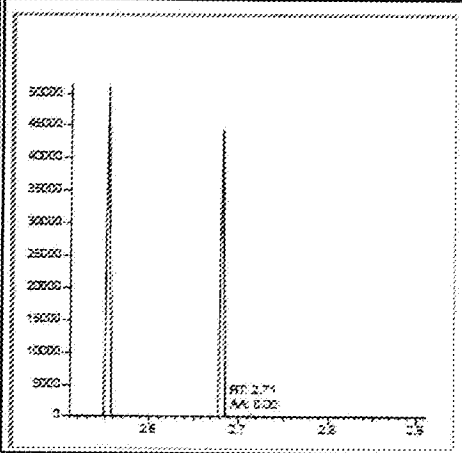
b6 -1  
b7C -1

2017-00469 1027-2017

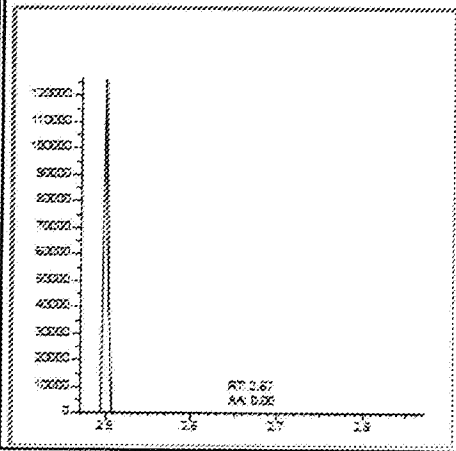
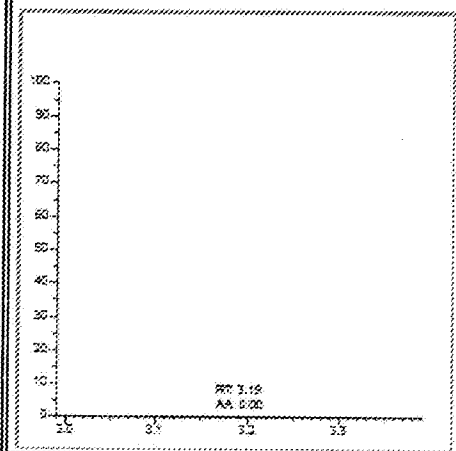
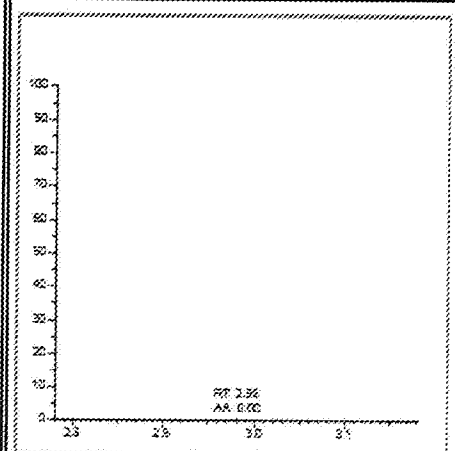
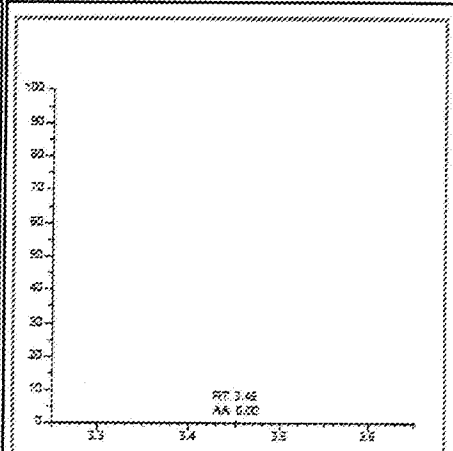
Compound:	<b>diazepam</b>	Compound:	<b>estazolam</b>	Compound:	<b>etizolam</b>	Compound:	<b>flunitrazepam</b>
RT(exp)	3.7	RT(exp)	3	RT(exp)	3.25	RT(exp)	3.22
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A

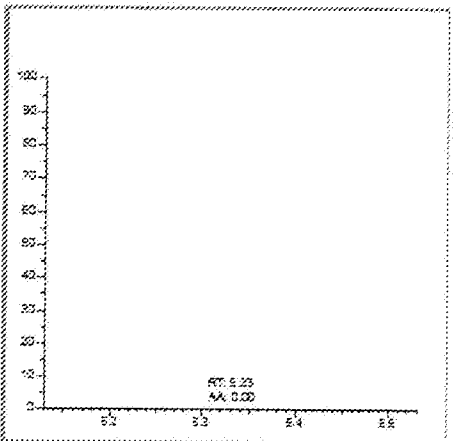
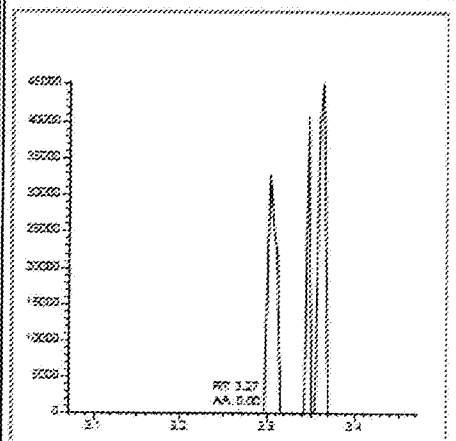
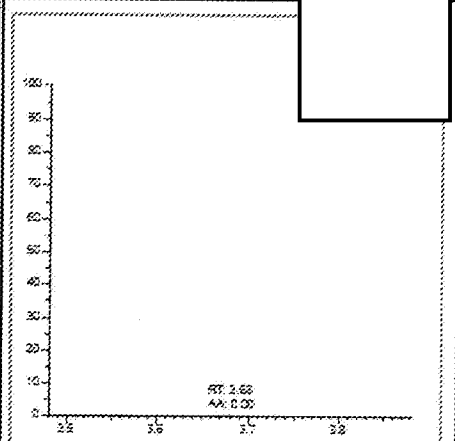
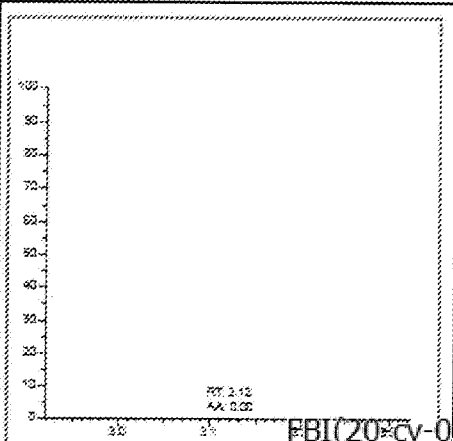


Compound:	<b>flurazepam</b>	Compound:	<b>lorazepam</b>	Compound:	<b>lormetazepam</b>	Compound:	<b>medazepam</b>
RT(exp)	2.71	RT(exp)	3.04	RT(exp)	3.43	RT(exp)	2.71
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A



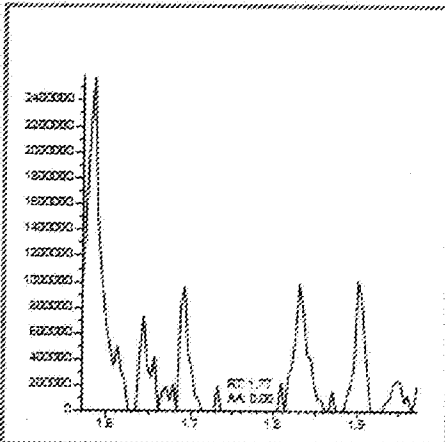
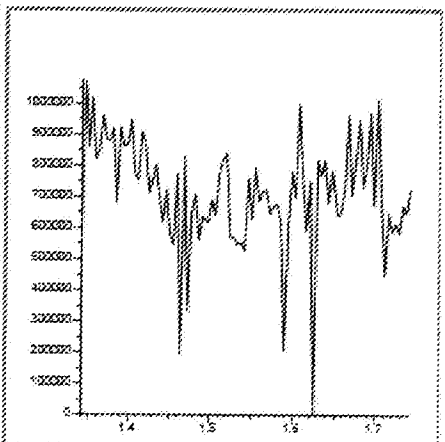
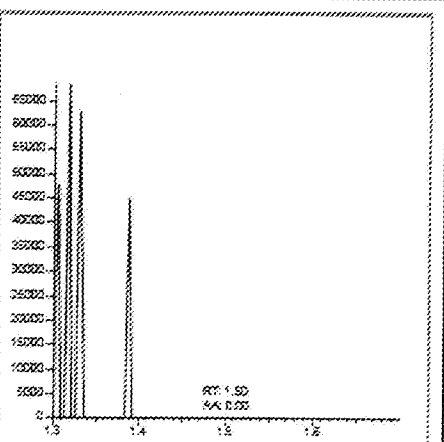
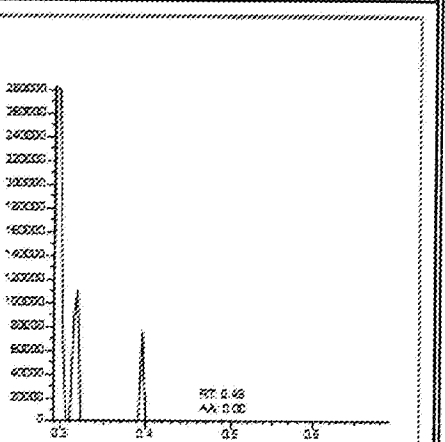
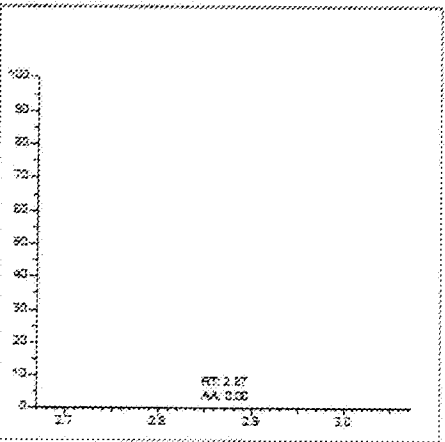
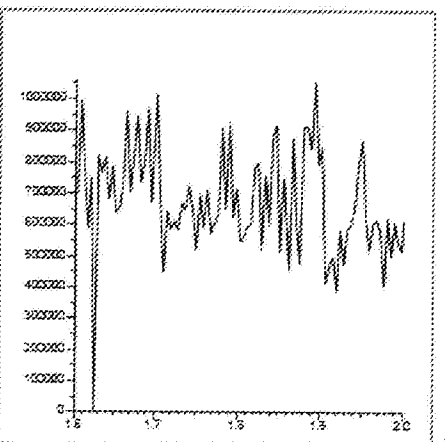
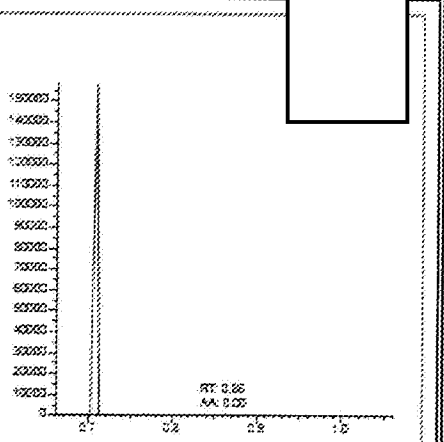
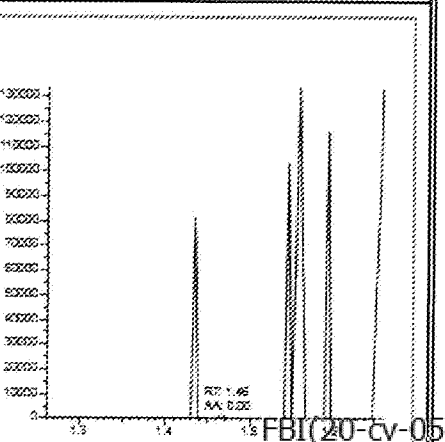
b6 -1  
 b7C -1

Compound:	<b>midazolam</b>	Compound:	<b>nordiazepam</b>	Compound:	<b>oxazepam</b>	Compound:	<b>phenazepam</b>
RT(exp)	2.67	RT(exp)	3.19	RT(exp)	2.98	RT(exp)	3.45
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>prazepam</b>	Compound:	<b>temazepam</b>	Compound:	<b>tetrazepam</b>	Compound:	<b>triazolam</b>
RT(exp)	5.33	RT(exp)	3.27	RT(exp)	3.68	RT(exp)	3.12
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

b6 -1  
 b7C -1

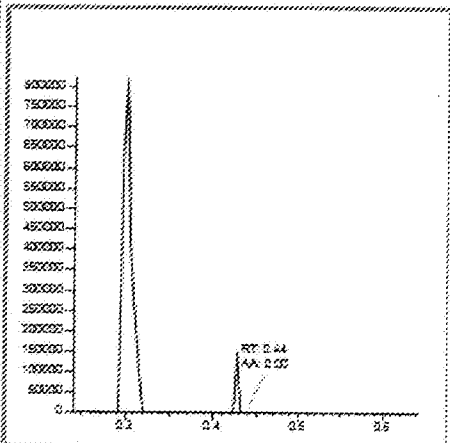
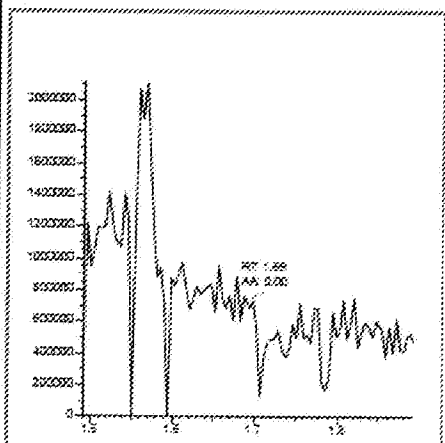
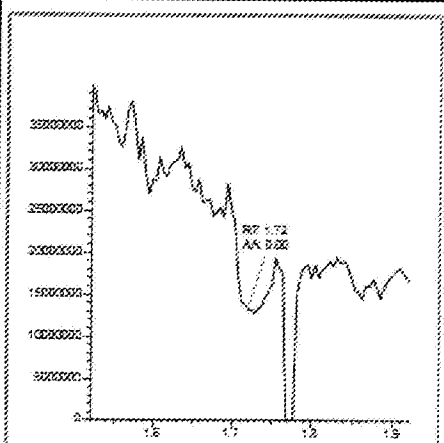
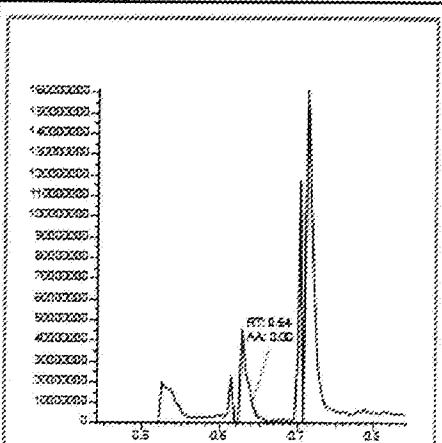
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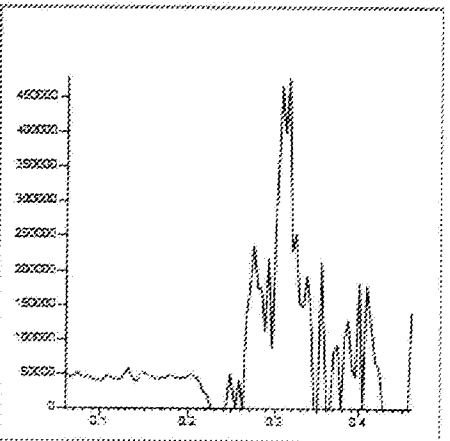
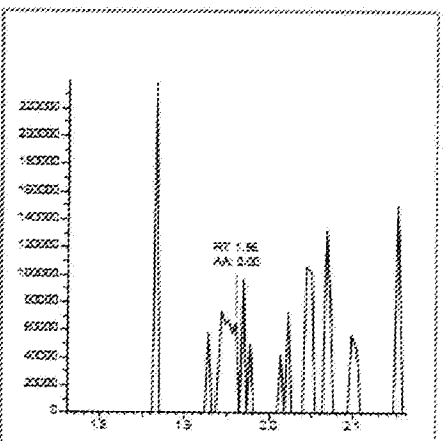
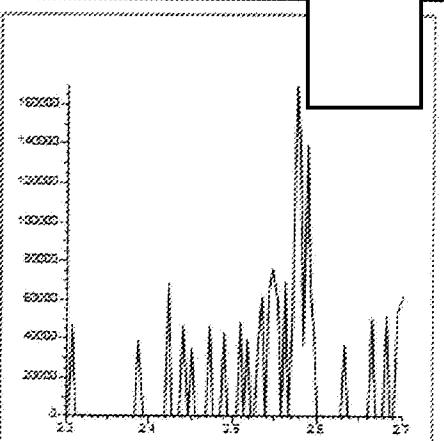
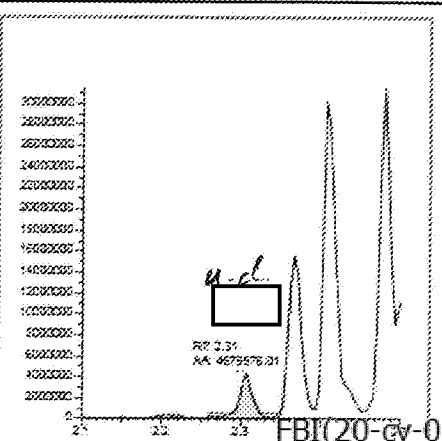
Compound: <b>6-acetylmorphine</b>	Compound: <b>codeine</b>	Compound: <b>dihydrocodeine</b>	Compound: <b>dihydromorphone</b>
RT(exp) 1.77	RT(exp) 1.54	RT(exp) 1.5	RT(exp) 0.49
RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)
Area: N/A	Area: N/A	Area: N/A	Area: N/A
m/z:	m/z:	m/z:	m/z:
delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A
			
Compound: <b>EDDP</b>	Compound: <b>hydrocodone</b>	Compound: <b>hydromorphone</b>	Compound: <b>norcodeine</b>
RT(exp) 2.87	RT(exp) 1.8	RT(exp) 0.86	RT(exp) 1.46
RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)
Area: N/A	Area: N/A	Area: N/A	Area: N/A
m/z:	m/z:	m/z:	m/z:
delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A
			

b6 -1  
 b7C -1

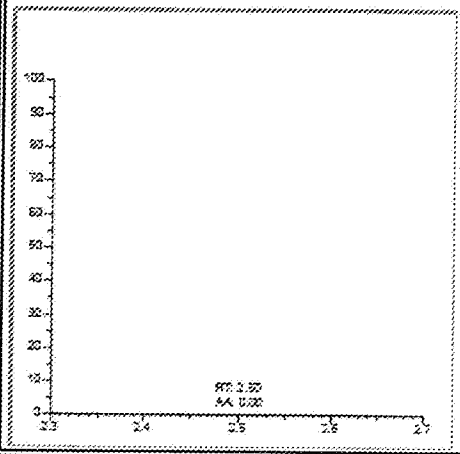
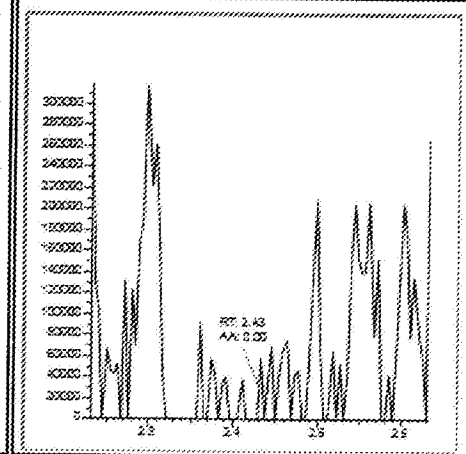
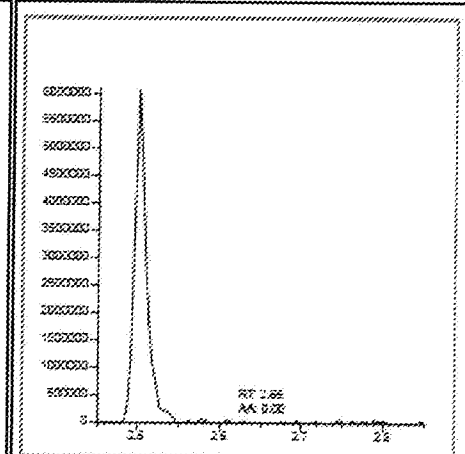
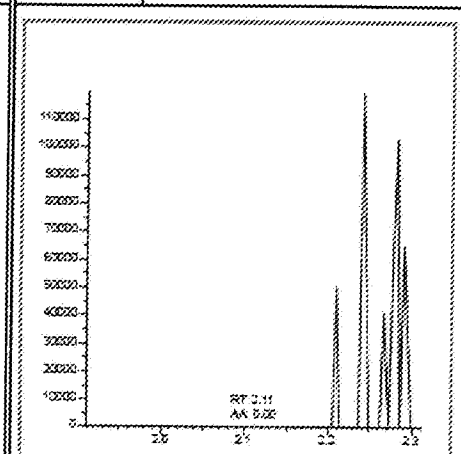
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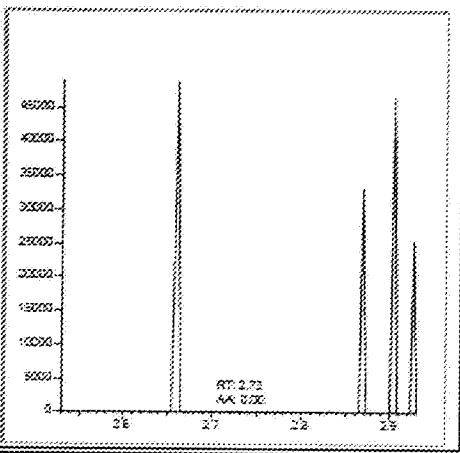
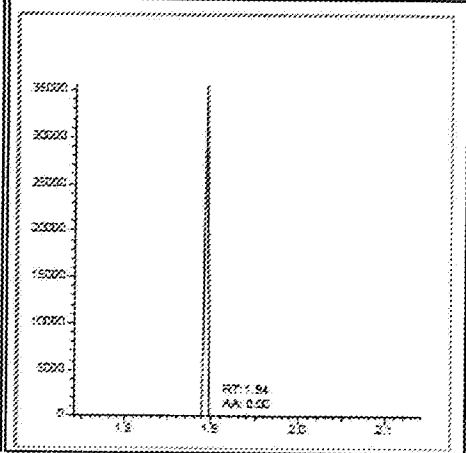
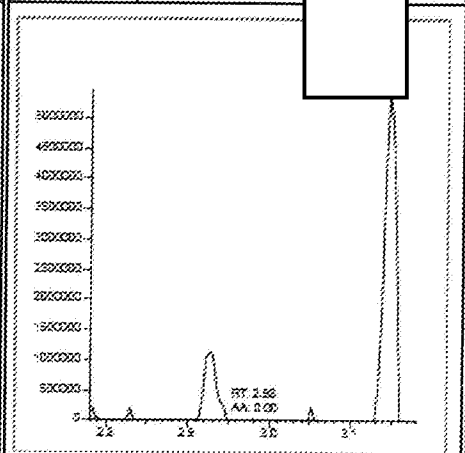
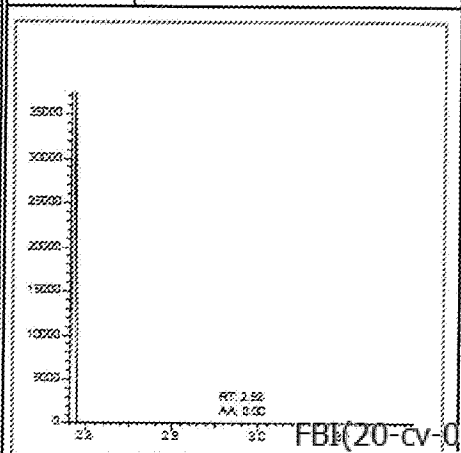


Compound:	<b>normorphine</b>	Compound:	<b>noroxycodone</b>	Compound:	<b>oxycodone</b>	Compound:	<b>oxymorphone</b>
RT(exp)	0.44	RT(exp)	1.69	RT(exp)	1.72	RT(exp)	0.64
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>ecgonine methyl ester</b>	Compound:	<b>benzoylecgonine</b>	Compound:	<b>cocaethylene</b>	Compound:	<b>cocaine</b>
RT(exp)	0.26	RT(exp)	1.96	RT(exp)	2.5	RT(exp)	2.3
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	2.31 (0.01)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	4676000
m/z:		m/z:		m/z:		m/z:	304.1550
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): 0.67
							

b6 -1  
 b7C -1

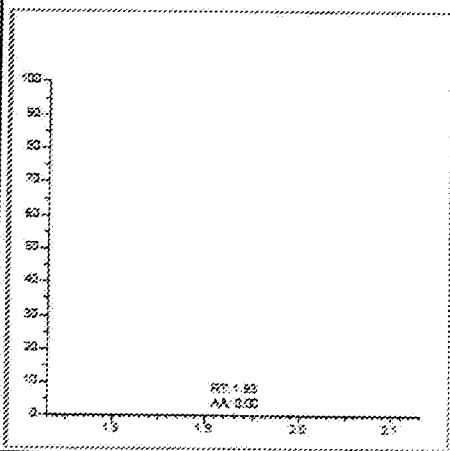
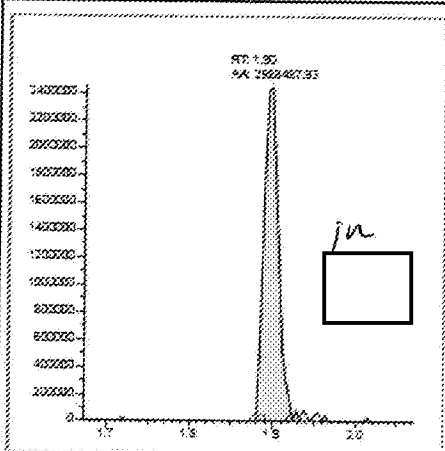
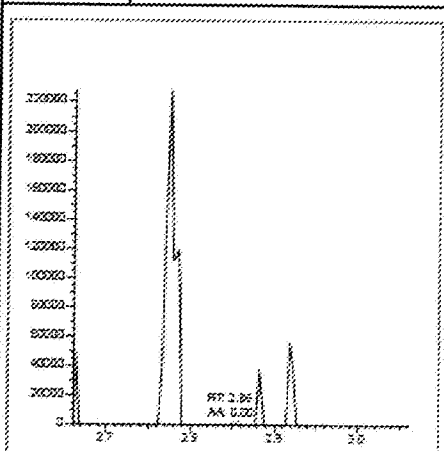
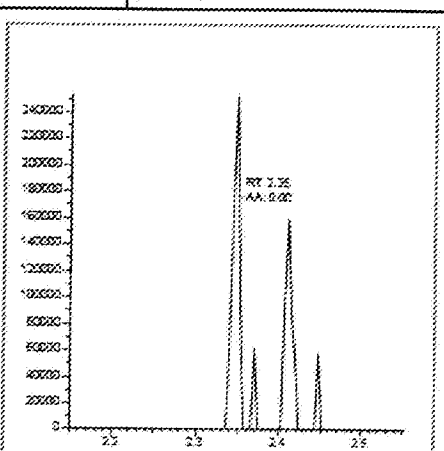
Compound:	<b>brompheniramine</b>	Compound:	<b>chlorpheniramine</b>	Compound:	<b>dextromethorphan</b>	Compound:	<b>dextrophan</b>
RT(exp)	2.5	RT(exp)	2.43	RT(exp)	2.65	RT(exp)	2.11
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>diphenhydramine</b>	Compound:	<b>doxylamine</b>	Compound:	<b>hydroxyzine</b>	Compound:	<b>norchlorcyclizine</b>
RT(exp)	2.73	RT(exp)	1.94	RT(exp)	2.98	RT(exp)	2.98
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

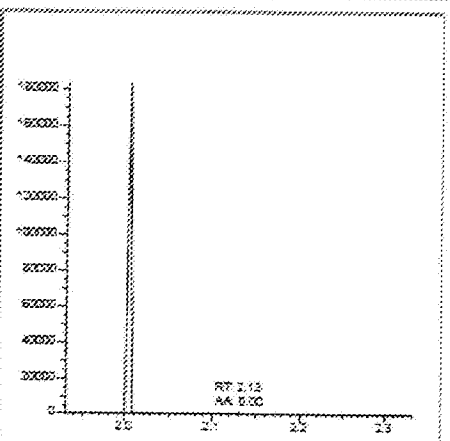
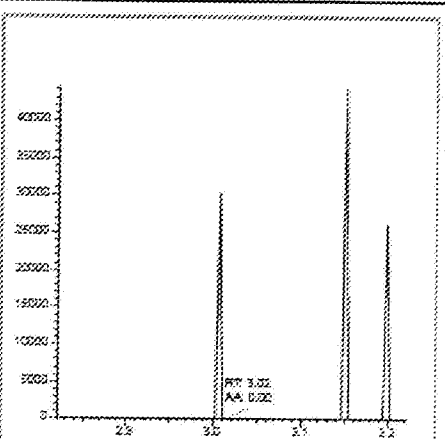
b6 -1  
b7C -1

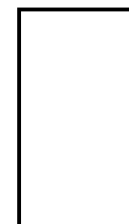
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Compound:	pheniramine	Compound:	tetrahydrozoline	Compound:	zaleplon	Compound:	zolpidem
RT(exp)	1.93	RT(exp)	1.87	RT(exp)	2.86	RT(exp)	2.35
RT(delta)	N/A (N/A)	RT(delta)	1.9 (0.03)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	2988500	Area:	N/A	Area:	N/A
m/z:		m/z:	201.1391	m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): 0.42	delta	(mmu): N/A	delta	(mmu): N/A
							

b6 -1  
b7C -1

Compound:	zopiclone	Compound:	duloxetine
RT(exp)	2.13	RT(exp)	3.02
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A
m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A
			



2017-00469 1027-2017

## Exclusionary Screening by UPLC/FTMS

Batch: 20170928  
 Method: ExclusionSOP\_TargetingScreening  
 Inst. Method:  
 Acquired: 9/29/2017 5:42  
 Sample Type: Unknown  
 Vial Position: 2:B.6

Lab Name: FBI Laboratory  
 Assay: Exclusionary Screening TOX 215

Sample: hydrolysis check  
 Comment:  
 File: 20170928\_67

Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
●	d5-alprazolam	+	1.34E+07	3.07 (-0.03)	314.1215	314.1221	0.54	100.00	6 of 7	
●	d5-hydroxalprazolam	+	2.58E+06	2.91 (-0.03)	330.1165	330.1171	0.68	100.00	5 of 6	
	d4-clonazepam	+	N/A	N/A (N/A)	320.0735	N/A	N/A	N/A	N/A	
●	d4-7-aminoclonazepam	+	2.64E+06	2.06 (-0.01)	290.0993	290.0998	0.49	100.00	5 of 6	
	d5-diazepam	+	N/A	N/A (N/A)	290.1103	N/A	N/A	N/A	N/A	
●	d5-oxazepam	+	8.60E+05	2.98 (-0.02)	292.0896	292.0902	0.61	100.00	5 of 6	
●	d6-zolpidem	+	8.38E+06	2.36 (-0.01)	314.2134	314.2136	0.16	100.00	2 of 3	
●	d3-benzoylcegonine	+	6.46E+07	1.96 (-0.01)	293.1575	293.1579	0.39	100.00	4 of 4	
●	d3-diphenhydramine	+	1.13E+07	2.73 (0)	259.1884	259.1890	0.54	100.00	3 of 4	
●	d6-oxycodone	+	9.18E+06	1.71 (-0.01)	322.1920	322.1926	0.60	100.00	4 of 4	
●	d3-morphine	+	1.05E+07	0.56 (0)	289.1626	289.1630	0.39	100.00	3 of 4	
●	d3-hydrocodone	+	1.71E+07	1.8 (-0.03)	303.1783	303.1787	0.46	100.00	3 of 4	
●	morphine	+	6.96E+07	0.56 (0)	286.1438	286.1442	0.46	100.00	4 of 5	
	hydroxalprazolam	+	N/A	N/A (N/A)	325.0851	N/A	N/A	N/A	N/A	
	hydroxymidazolam	+	N/A	N/A (N/A)	342.0804	N/A	N/A	N/A	N/A	
	hydroxytriazolam	+	N/A	N/A (N/A)	359.0461	N/A	N/A	N/A	N/A	
	7-aminoclonazepam	+	N/A	N/A (N/A)	286.0742	N/A	N/A	N/A	N/A	
	7-aminoflunitrazepam	+	N/A	N/A (N/A)	284.1194	N/A	N/A	N/A	N/A	
	alprazolam	+	N/A	N/A (N/A)	309.0902	N/A	N/A	N/A	N/A	
	bromazepam	+	N/A	N/A (N/A)	316.0080	N/A	N/A	N/A	N/A	
	chlordiazepoxide	+	N/A	N/A (N/A)	300.0898	N/A	N/A	N/A	N/A	
	clonazepam	+	N/A	N/A (N/A)	316.0484	N/A	N/A	N/A	N/A	
	desalkylflurazepam	+	N/A	N/A (N/A)	289.0539	N/A	N/A	N/A	N/A	
	desmethyflunitrazepam	+	N/A	N/A (N/A)	300.0779	N/A	N/A	N/A	N/A	
	diazepam	+	N/A	N/A (N/A)	285.0789	N/A	N/A	N/A	N/A	
	estazolam	+	N/A	N/A (N/A)	295.0745	N/A	N/A	N/A	N/A	
	etizolam	+	N/A	N/A (N/A)	343.0779	N/A	N/A	N/A	N/A	
	flunitrazepam	+	N/A	N/A (N/A)	314.0936	N/A	N/A	N/A	N/A	
	flurazepam	+	N/A	N/A (N/A)	388.1586	N/A	N/A	N/A	N/A	

b7E -2

b6 -1  
b7C -1

2017-08-09 10:27-2017

## Exclusionary Screening by UPLC/FTMS

Batch: 20170928  
 Method: ExclusionSOP\_TargetingScreening  
 Inst. Method:  
 Acquired: 9/29/2017 5:42  
 Sample Type: Unknown  
 Vial Position: 2.B.6

Lab Name: FBI Laboratory  
 Assay: Exclusionary Screening TOX 215

Sample: hydrolysis check  
 Comment:  
 File: 20170928\_67

Detected	Target Name	±	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	lorazepam	+	N/A	N/A (N/A)	321.0192	N/A	N/A	N/A	N/A	
	lormetazepam	+	N/A	N/A (N/A)	335.0349	N/A	N/A	N/A	N/A	
	medazepam	+	N/A	N/A (N/A)	271.0997	N/A	N/A	N/A	N/A	
	midazolam	+	N/A	N/A (N/A)	326.0855	N/A	N/A	N/A	N/A	
	nordiazepam	+	N/A	N/A (N/A)	271.0633	N/A	N/A	N/A	N/A	
	oxazepam	+	N/A	N/A (N/A)	287.0582	N/A	N/A	N/A	N/A	
	phenazepam	+	N/A	N/A (N/A)	348.9738	N/A	N/A	N/A	N/A	
	prazepam	+	N/A	N/A (N/A)	325.1102	N/A	N/A	N/A	N/A	
	temazepam	+	N/A	N/A (N/A)	301.0738	N/A	N/A	N/A	N/A	
	tetrazepam	+	N/A	N/A (N/A)	289.1102	N/A	N/A	N/A	N/A	
	triazolam	+	N/A	N/A (N/A)	343.0512	N/A	N/A	N/A	N/A	
	6-acetylmorphine	+	N/A	N/A (N/A)	328.1543	N/A	N/A	N/A	N/A	
	codeine	+	N/A	N/A (N/A)	300.1594	N/A	N/A	N/A	N/A	
	dihydrocodeine	+	N/A	N/A (N/A)	302.1751	N/A	N/A	N/A	N/A	
	dihydromorphone	+	N/A	N/A (N/A)	288.1594	N/A	N/A	N/A	N/A	
	EDDP	+	N/A	N/A (N/A)	278.1903	N/A	N/A	N/A	N/A	
	hydrocodone	+	N/A	N/A (N/A)	300.1594	N/A	N/A	N/A	N/A	
	hydromorphone	+	N/A	N/A (N/A)	286.1438	N/A	N/A	N/A	N/A	
	norcodeine	+	N/A	N/A (N/A)	286.1438	N/A	N/A	N/A	N/A	
	normorphine	+	N/A	N/A (N/A)	272.1281	N/A	N/A	N/A	N/A	
	noroxycodone	+	N/A	N/A (N/A)	302.1387	N/A	N/A	N/A	N/A	
	oxycodone	+	N/A	N/A (N/A)	316.1543	N/A	N/A	N/A	N/A	
	oxymorphone	+	N/A	N/A (N/A)	302.1387	N/A	N/A	N/A	N/A	
	ecgonine methyl ester	+	N/A	N/A (N/A)	200.1281	N/A	N/A	N/A	N/A	
	benzoylecgonine	+	1.03E+05	1.96 (0)	290.1387	290.1388	0.11	100.00	2 of 2	
	cocaethylene	+	N/A	N/A (N/A)	318.1700	N/A	N/A	N/A	N/A	
	cocaine	+	N/A	N/A (N/A)	304.1543	N/A	N/A	N/A	N/A	
	brompheniramine	+	N/A	N/A (N/A)	319.0804	N/A	N/A	N/A	N/A	
	chlorpheniramine	+	N/A	N/A (N/A)	275.1310	N/A	N/A	N/A	N/A	

b7E -2

b6 -1  
b7C -1

2017-00469 1027-2017

## Exclusionary Screening by UPLC/FTMS

Batch: 20170928  
 Method: ExclusionSOP\_TargetingScreening  
 Inst. Method:  
 Acquired: 9/29/2017 5:42  
 Sample Type: Unknown  
 Vial Position: 2:B.6

Lab Name: FBI Laboratory  
 Assay: Exclusionary Screening TOX 215

Sample: hydrolysis check  
 Comment: \_\_\_\_\_  
 File: 20170928\_67

Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	dextromethorphan	+	N/A	N/A (N/A)	272.2009	N/A		N/A N/A	N/A	
	dextrorphan	+	N/A	N/A (N/A)	258.1852	N/A		N/A N/A	N/A	
	diphenhydramine	+	N/A	N/A (N/A)	256.1696	N/A		N/A N/A	N/A	
	doxylamine	+	N/A	N/A (N/A)	271.1805	N/A		N/A N/A	N/A	
	hydroxyzine	+	N/A	N/A (N/A)	375.1834	N/A		N/A N/A	N/A	
	norchlorcyclizine	+	N/A	N/A (N/A)	287.1310	N/A		N/A N/A	N/A	
	pheniramine	+	N/A	N/A (N/A)	241.1699	N/A		N/A N/A	N/A	
●	tetrahydrozoline	+	1.31E+06	1.91 (0.04)	201.1386	201.1392	0.53	100.00	2 of 4	<i>not</i> <span style="border: 1px solid black; padding: 0 5px;"> </span>
	zaleplon	+	N/A	N/A (N/A)	306.1349	N/A		N/A N/A	N/A	
	zolpidem	+	N/A	N/A (N/A)	308.1757	N/A		N/A N/A	N/A	
	zopiclone	+	N/A	N/A (N/A)	389.1123	N/A		N/A N/A	N/A	
	duloxetine	+	N/A	N/A (N/A)	298.1260	N/A		N/A N/A	N/A	

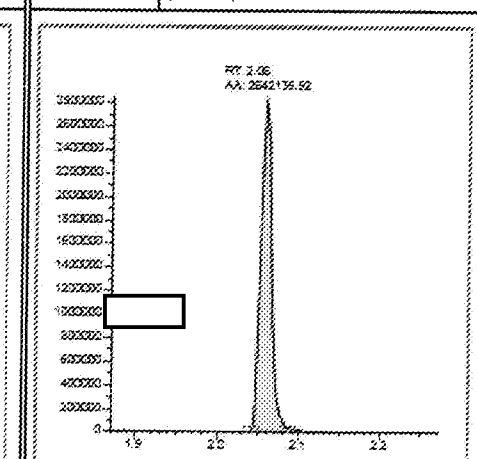
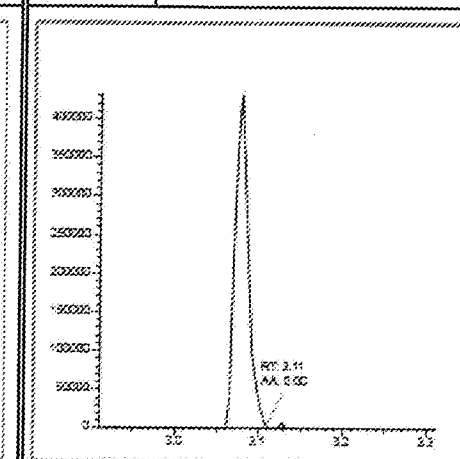
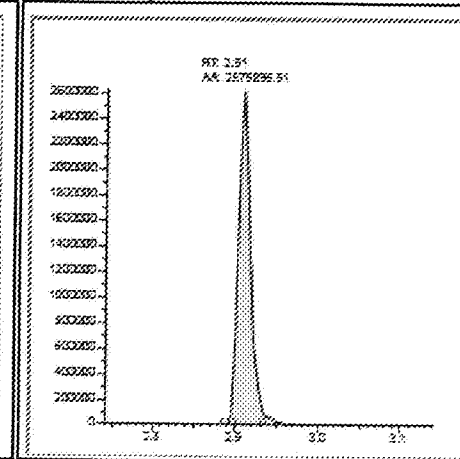
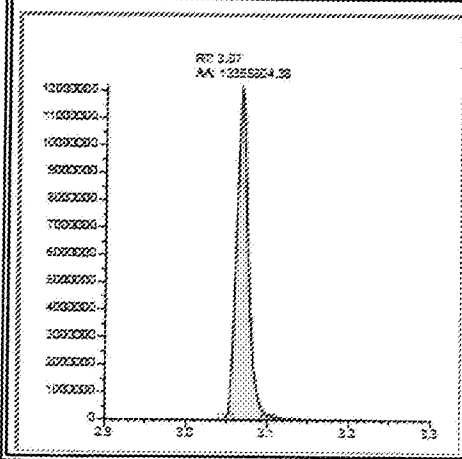
b7E -2

b6 -1  
 b7C -1

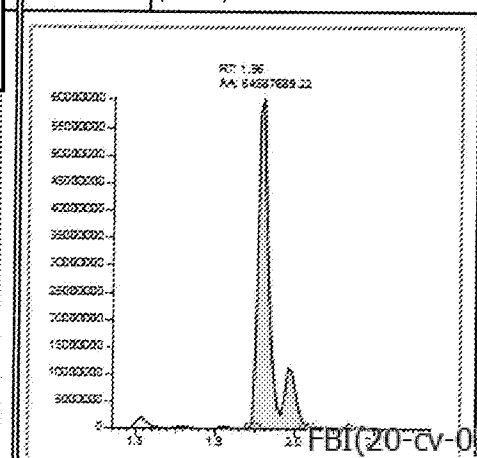
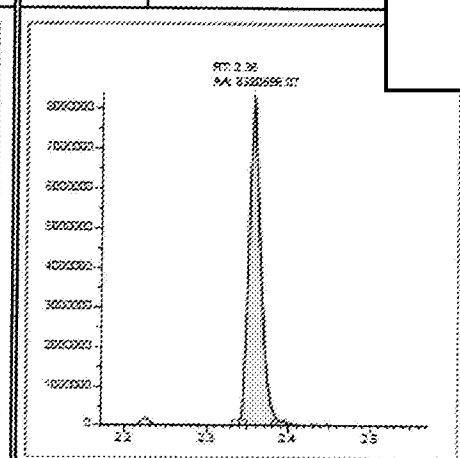
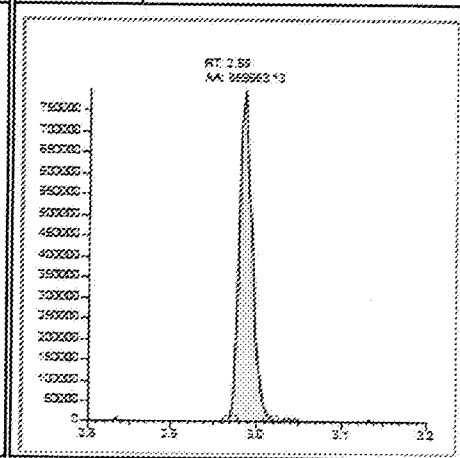
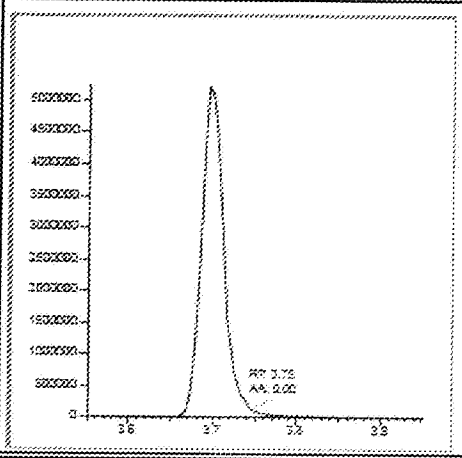
2017-00489 1027-2017

hydrolysis check

Compound:	<b>d5-alprazolam</b>	Compound:	<b>d5-hydroxalprazolam</b>	Compound:	<b>d4-clonazepam</b>	Compound:	<b>d4-7-aminoclonazepam</b>
RT(exp)	3.1	RT(exp)	2.94	RT(exp)	3.11	RT(exp)	2.07
RT(delta)	3.07 (-0.03)	RT(delta)	2.91 (-0.03)	RT(delta)	N/A (N/A)	RT(delta)	2.06 (-0.01)
Area:	13356000	Area:	2575900	Area:	N/A	Area:	2642100
m/z:	314.1221	m/z:	330.1171	m/z:		m/z:	290.0998
delta	(mmu): 0.54	delta	(mmu): 0.68	delta	(mmu): N/A	delta	(mmu): 0.49



Compound:	<b>d5-diazepam</b>	Compound:	<b>d5-oxazepam</b>	Compound:	<b>d6-zolpidem</b>	Compound:	<b>d3-benzoyllecgonine</b>
RT(exp)	3.75	RT(exp)	3	RT(exp)	2.37	RT(exp)	1.97
RT(delta)	N/A (N/A)	RT(delta)	2.98 (-0.02)	RT(delta)	2.36 (-0.01)	RT(delta)	1.96 (-0.01)
Area:	N/A	Area:	859560	Area:	8380600	Area:	64588000
m/z:		m/z:	292.0902	m/z:	314.2136	m/z:	293.1579
delta	(mmu): N/A	delta	(mmu): 0.61	delta	(mmu): 0.16	delta	(mmu): 0.39

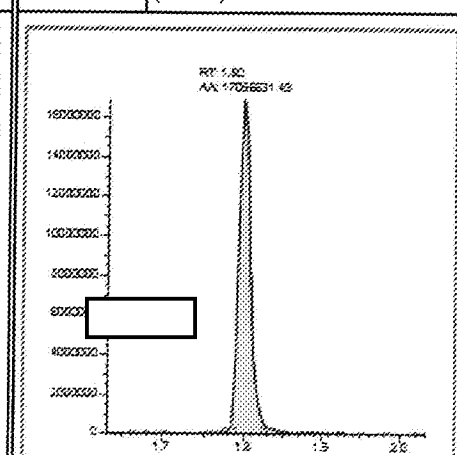
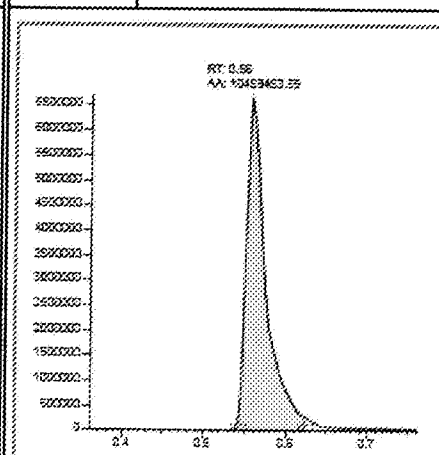
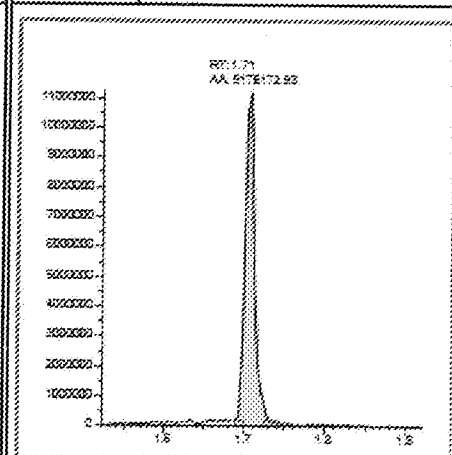
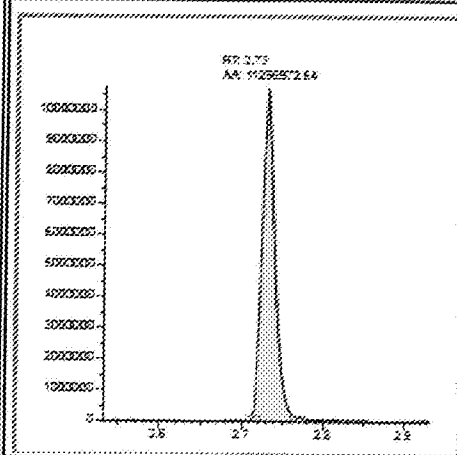


b6 -1  
 b7C -1

2017-06-09 10:27-2017

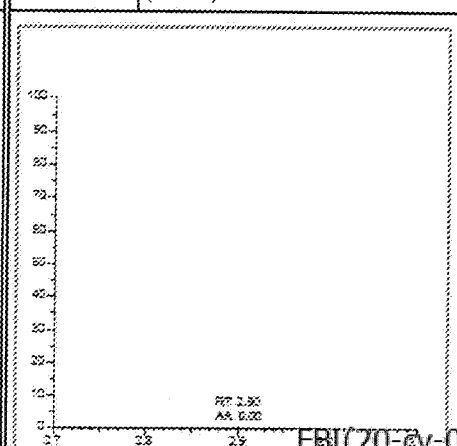
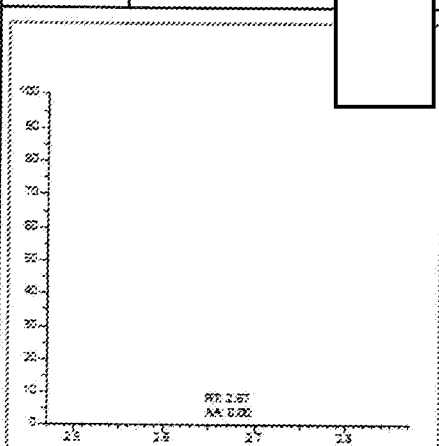
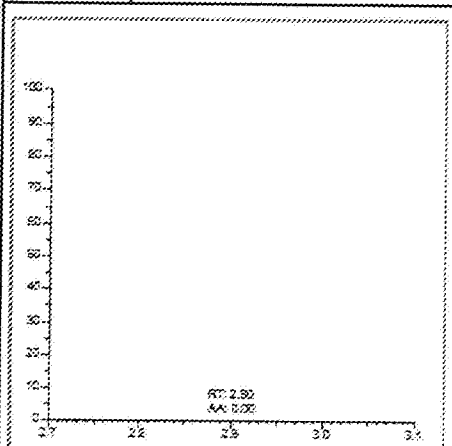
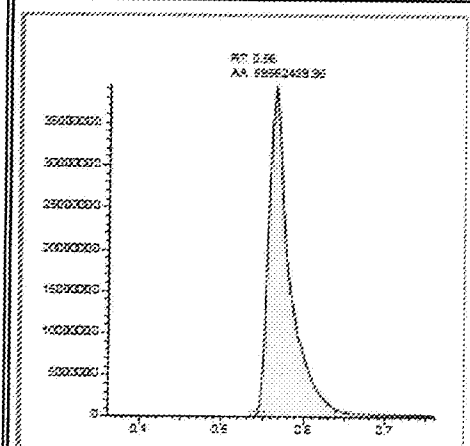
hydrolysis check

Compound:	<b>d3-diphenhydramine</b>	Compound:	<b>d6-oxycodone</b>	Compound:	<b>d3-morphine</b>	Compound:	<b>d3-hydrocodone</b>
RT(exp)	2.73	RT(exp)	1.72	RT(exp)	0.56	RT(exp)	1.83
RT(delta)	2.73 (0)	RT(delta)	1.71 (-0.01)	RT(delta)	0.56 (0)	RT(delta)	1.8 (-0.03)
Area:	11297000	Area:	9176200	Area:	10459000	Area:	17057000
m/z:	259.1890	m/z:	322.1926	m/z:	289.1630	m/z:	303.1787
delta	(mmu): 0.54	delta	(mmu): 0.6	delta	(mmu): 0.39	delta	(mmu): 0.46



b6 -1  
b7C -1

Compound:	<b>morphine</b>	Compound:	<b>hydroxylprazolam</b>	Compound:	<b>hydroxymidazolam</b>	Compound:	<b>hydroxytriazolam</b>
RT(exp)	0.56	RT(exp)	2.9	RT(exp)	2.67	RT(exp)	2.9
RT(delta)	0.56 (0)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	69562000	Area:	N/A	Area:	N/A	Area:	N/A
m/z:	286.1442	m/z:		m/z:		m/z:	
delta	(mmu): 0.46	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A





## Exclusionary Screening by UPLC/FTMS

Batch: 20170928

Method: ExclusionSOP\_TargetingScreening

Inst. Method:

Acquired: 9/29/2017 4:11

Sample Type: Unknown

Vial Position: 2:A,6

Lab Name: FBI Laboratory

Assay: Exclusionary Screening TOX 215

Sample: ncu

Comment: \_\_\_\_\_

File: 20170928\_59

b7E -2

Detected	Target Name	±	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
●	d5-alprazolam	+	1.53E+07	3.07 (-0.03)	314.1215	314.1221	0.57	100.00	7 of 7	
●	d5-hydroxalprazolam	+	3.02E+06	2.91 (-0.03)	330.1165	330.1171	0.62	100.00	4 of 6	
●	d4-clonazepam	+	6.63E+05	3.07 (-0.04)	320.0735	320.0740	0.59	100.00	4 of 5	
●	d4-7-aminoclonazepam	+	2.49E+06	2.06 (-0.01)	290.0993	290.0998	0.49	100.00	4 of 6	
	d5-diazepam	+	N/A	N/A (N/A)	290.1103	N/A	N/A	N/A	N/A	
●	d5-oxazepam	+	1.37E+06	2.98 (-0.02)	292.0896	292.0901	0.49	100.00	5 of 5	
●	d6-zolpidem	+	8.53E+06	2.35 (-0.02)	314.2134	314.2137	0.25	100.00	3 of 3	
●	d3-benzoyllecgonine	+	5.91E+07	1.96 (-0.01)	293.1575	293.1580	0.45	100.00	4 of 4	
●	d3-diphenhydramine	+	4.40E+06	2.73 (0)	259.1884	259.1890	0.58	100.00	3 of 3	
●	d6-oxycodone	+	8.81E+06	1.7 (-0.02)	322.1920	322.1927	0.69	100.00	3 of 4	
●	d3-morphine	+	1.09E+07	0.56 (0)	289.1626	289.1631	0.52	100.00	3 of 4	
●	d3-hydrocodone	+	1.51E+07	1.8 (-0.03)	303.1783	303.1789	0.61	100.00	3 of 4	
	morphine	+	N/A	N/A (N/A)	286.1438	N/A	N/A	N/A	N/A	
	hydroxalprazolam	+	N/A	N/A (N/A)	325.0851	N/A	N/A	N/A	N/A	
	hydroxymidazolam	+	N/A	N/A (N/A)	342.0804	N/A	N/A	N/A	N/A	
	hydroxytriazolam	+	N/A	N/A (N/A)	359.0461	N/A	N/A	N/A	N/A	
	7-aminoclonazepam	+	N/A	N/A (N/A)	286.0742	N/A	N/A	N/A	N/A	
	7-aminoflunitrazepam	+	N/A	N/A (N/A)	284.1194	N/A	N/A	N/A	N/A	
	alprazolam	+	N/A	N/A (N/A)	309.0902	N/A	N/A	N/A	N/A	
	bromazepam	+	N/A	N/A (N/A)	316.0080	N/A	N/A	N/A	N/A	
	chlordiazepoxide	+	N/A	N/A (N/A)	300.0898	N/A	N/A	N/A	N/A	
	clonazepam	+	N/A	N/A (N/A)	316.0484	N/A	N/A	N/A	N/A	
	desalkylflurazepam	+	N/A	N/A (N/A)	289.0539	N/A	N/A	N/A	N/A	
	desmethyflunitrazepam	+	N/A	N/A (N/A)	300.0779	N/A	N/A	N/A	N/A	
	diazepam	+	N/A	N/A (N/A)	285.0789	N/A	N/A	N/A	N/A	
	estazolam	+	N/A	N/A (N/A)	295.0745	N/A	N/A	N/A	N/A	
	etizolam	+	N/A	N/A (N/A)	343.0779	N/A	N/A	N/A	N/A	
	flunitrazepam	+	N/A	N/A (N/A)	314.0936	N/A	N/A	N/A	N/A	
	flurazepam	+	N/A	N/A (N/A)	388.1586	N/A	N/A	N/A	N/A	

b6 -1  
b7C -1

2017-08-09 10:27-2017

## Exclusionary Screening by UPLC/FTMS

Batch: 20170928

Method: ExclusionSOP\_TargetingScreening

Inst. Method:

Acquired: 9/29/2017 4:11

Sample Type: Unknown

Vial Position: 2-A 6

Lab Name: FBI Laboratory

Say: Exclusionary Screening TOX 215

Sample \_\_\_\_\_ ncu

Comment \_\_\_\_\_

File 20170928 59

Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	lorazepam	+	N/A	N/A (N/A)	321.0192	N/A	N/A	N/A	N/A	
	lormetazepam	+	N/A	N/A (N/A)	335.0349	N/A	N/A	N/A	N/A	
	medazepam	+	N/A	N/A (N/A)	271.0997	N/A	N/A	N/A	N/A	
	midazolam	+	N/A	N/A (N/A)	326.0855	N/A	N/A	N/A	N/A	
	nordiazepam	+	N/A	N/A (N/A)	271.0633	N/A	N/A	N/A	N/A	
	oxazepam	+	N/A	N/A (N/A)	287.0582	N/A	N/A	N/A	N/A	
	phenazepam	+	N/A	N/A (N/A)	348.9738	N/A	N/A	N/A	N/A	
	prazepam	+	N/A	N/A (N/A)	325.1102	N/A	N/A	N/A	N/A	
	temazepam	+	N/A	N/A (N/A)	301.0738	N/A	N/A	N/A	N/A	
	tetrazepam	+	N/A	N/A (N/A)	289.1102	N/A	N/A	N/A	N/A	
	triazolam	+	N/A	N/A (N/A)	343.0512	N/A	N/A	N/A	N/A	
	6-acetylmorphine	+	N/A	N/A (N/A)	328.1543	N/A	N/A	N/A	N/A	
	codeine	+	N/A	N/A (N/A)	300.1594	N/A	N/A	N/A	N/A	
	dihydrocodeine	+	N/A	N/A (N/A)	302.1751	N/A	N/A	N/A	N/A	
	dihydromorphine	+	N/A	N/A (N/A)	288.1594	N/A	N/A	N/A	N/A	
	EDDP	+	N/A	N/A (N/A)	278.1903	N/A	N/A	N/A	N/A	
	hydrocodone	+	N/A	N/A (N/A)	300.1594	N/A	N/A	N/A	N/A	
	hydromorphone	+	N/A	N/A (N/A)	286.1438	N/A	N/A	N/A	N/A	
	norcodeine	+	N/A	N/A (N/A)	286.1438	N/A	N/A	N/A	N/A	
	normorphine	+	N/A	N/A (N/A)	272.1281	N/A	N/A	N/A	N/A	
	noroxycodone	+	N/A	N/A (N/A)	302.1387	N/A	N/A	N/A	N/A	
	oxycodone	+	N/A	N/A (N/A)	316.1543	N/A	N/A	N/A	N/A	
	oxymorphone	+	N/A	N/A (N/A)	302.1387	N/A	N/A	N/A	N/A	
	ecgonine methyl ester	+	N/A	N/A (N/A)	200.1281	N/A	N/A	N/A	N/A	
	benzoylecgonine	+	N/A	N/A (N/A)	290.1387	N/A	N/A	N/A	N/A	
	cocaethylene	+	N/A	N/A (N/A)	318.1700	N/A	N/A	N/A	N/A	
	cocaine	+	N/A	N/A (N/A)	304.1543	N/A	N/A	N/A	N/A	
	brompheniramine	+	N/A	N/A (N/A)	319.0804	N/A	N/A	N/A	N/A	
	chlorpheniramine	+	N/A	N/A (N/A)	275.1310	N/A	N/A	N/A	N/A	

b7E -2

b6 -1  
b7C -1

2017-00469 1027-2017

## Exclusionary Screening by UPLC/FTMS

Batch: 20170928

Method: ExclusionSOP\_TargetingScreening

Inst. Method:

Acquired: 9/29/2017 4:11

Sample Type: Unknown

Vial Position: 2-A,6

Lab Name: FBI Laboratory

Assay: Exclusionary Screening TOX 215

Sample: ncu

Comment:

File: 20170928 59

Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	dextromethorphan	+	N/A	N/A (N/A)	272.2009	N/A	N/A	N/A	N/A	
	dextrorphan	+	N/A	N/A (N/A)	258.1852	N/A	N/A	N/A	N/A	
	diphenhydramine	+	N/A	N/A (N/A)	256.1696	N/A	N/A	N/A	N/A	
	doxylamine	+	N/A	N/A (N/A)	271.1805	N/A	N/A	N/A	N/A	
	hydroxyzine	+	N/A	N/A (N/A)	375.1834	N/A	N/A	N/A	N/A	
	norchlorcyclizine	+	N/A	N/A (N/A)	287.1310	N/A	N/A	N/A	N/A	
	pheniramine	+	N/A	N/A (N/A)	241.1699	N/A	N/A	N/A	N/A	
●	tetrahydrozoline	+	1.17E+06	1.91 (0.04)	201.1386	201.1391	0.50	82.00	1 of 4	n.d.
	zaleplon	+	N/A	N/A (N/A)	306.1349	N/A	N/A	N/A	N/A	
	zolpidem	+	N/A	N/A (N/A)	308.1757	N/A	N/A	N/A	N/A	
	zopiclone	+	N/A	N/A (N/A)	389.1123	N/A	N/A	N/A	N/A	
	duloxetine	+	N/A	N/A (N/A)	298.1260	N/A	N/A	N/A	N/A	

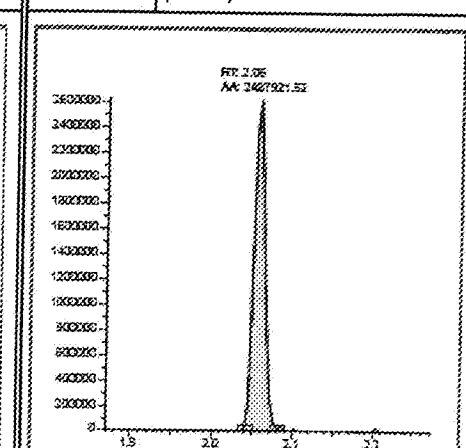
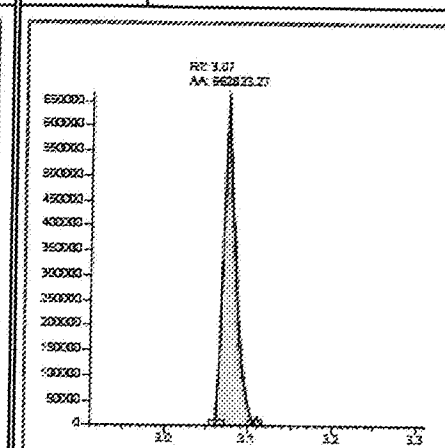
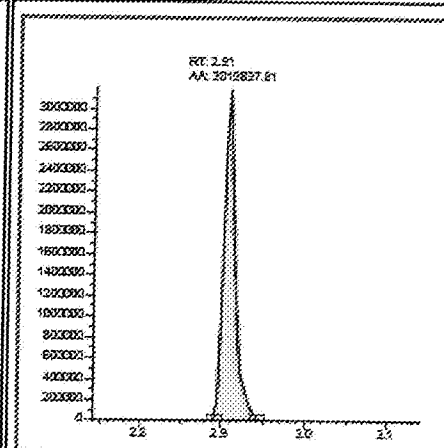
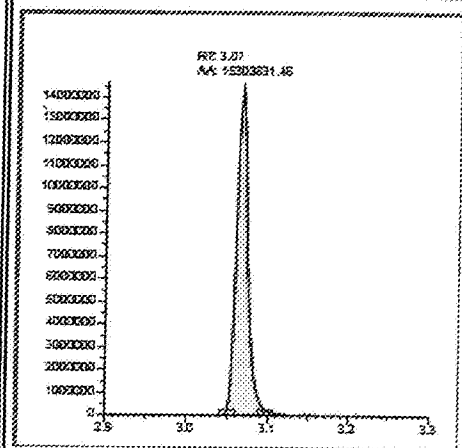
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b6 -1  
b7C -1

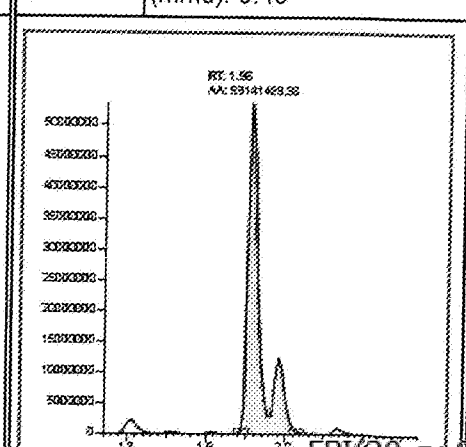
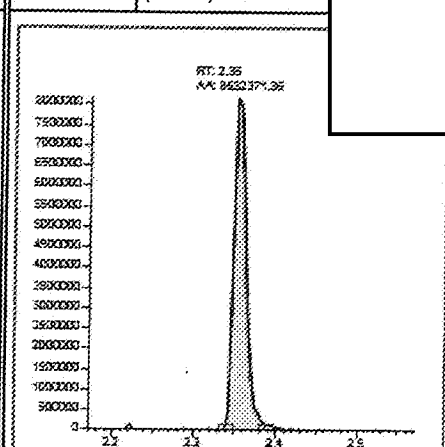
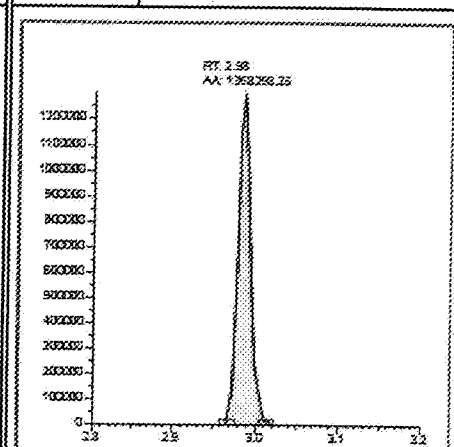
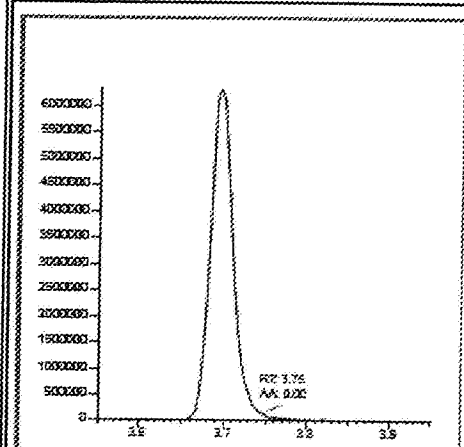
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Compound:	<b>d5-alprazolam</b>	Compound:	<b>d5-hydroxalprazolam</b>	Compound:	<b>d4-clonazepam</b>	Compound:	<b>d4-7-aminoclonazepam</b>
RT(exp)	3.1	RT(exp)	2.94	RT(exp)	3.11	RT(exp)	2.07
RT(delta)	3.07 (-0.03)	RT(delta)	2.91 (-0.03)	RT(delta)	3.07 (-0.04)	RT(delta)	2.06 (-0.01)
Area:	15304000	Area:	3019800	Area:	662830	Area:	2487900
m/z:	314.1221	m/z:	330.1171	m/z:	320.0740	m/z:	290.0998
delta	(mmu): 0.57	delta	(mmu): 0.62	delta	(mmu): 0.59	delta	(mmu): 0.49



Compound:	<b>d5-diazepam</b>	Compound:	<b>d5-oxazepam</b>	Compound:	<b>d6-zolpidem</b>	Compound:	<b>d3-benzoyllecgonine</b>
RT(exp)	3.75	RT(exp)	3	RT(exp)	2.37	RT(exp)	1.97
RT(delta)	N/A (N/A)	RT(delta)	2.98 (-0.02)	RT(delta)	2.35 (-0.02)	RT(delta)	1.96 (-0.01)
Area:	N/A	Area:	1368300	Area:	8532400	Area:	59141000
m/z:		m/z:	292.0901	m/z:	314.2137	m/z:	293.1580
delta	(mmu): N/A	delta	(mmu): 0.49	delta	(mmu): 0.25	delta	(mmu): 0.45

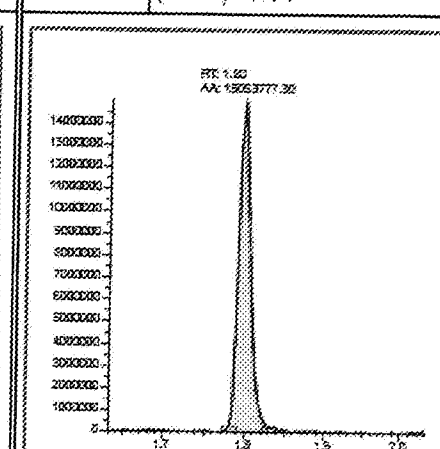
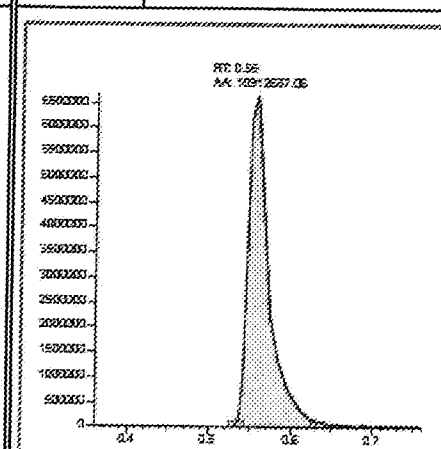
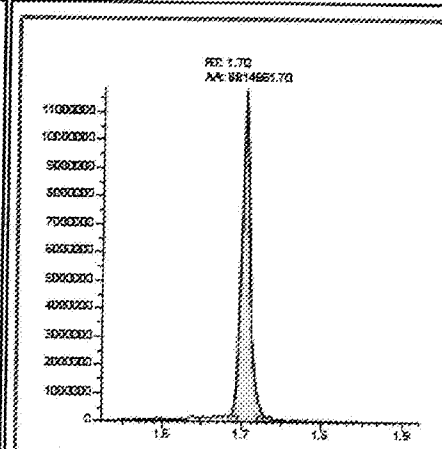
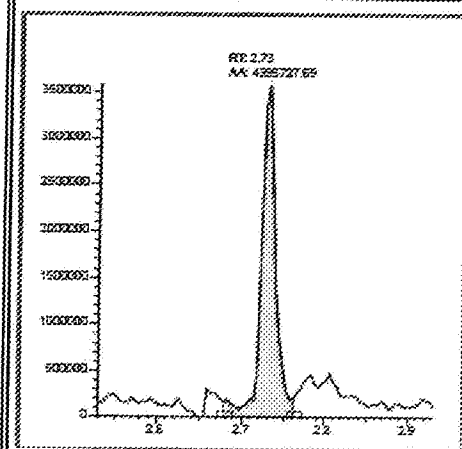


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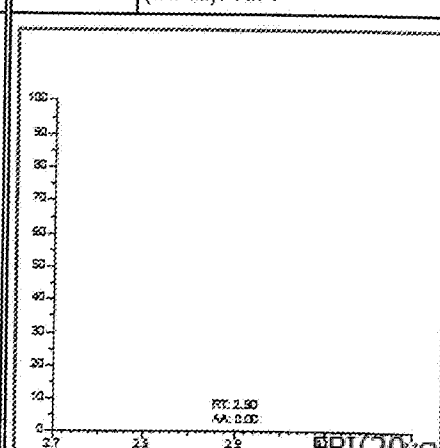
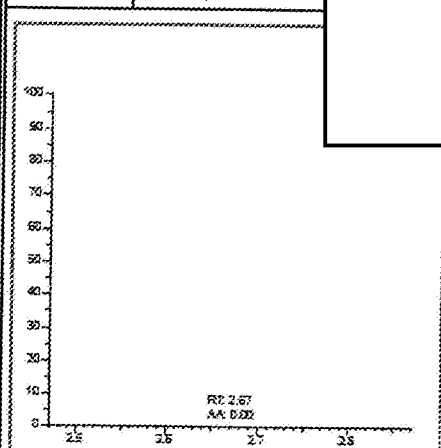
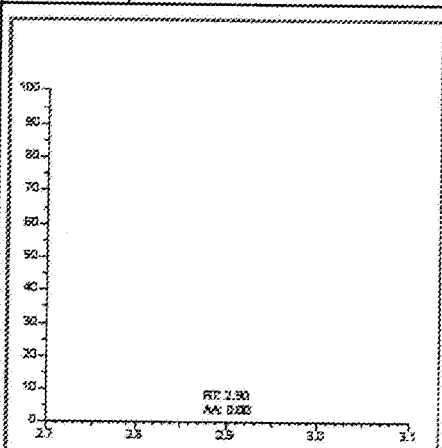
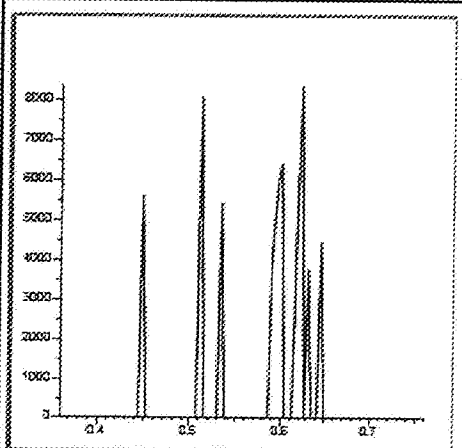
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Compound:	<b>d3-diphenhydramine</b>	Compound:	<b>d6-oxycodone</b>	Compound:	<b>d3-morphine</b>	Compound:	<b>d3-hydrocodone</b>
RT(exp)	2.73	RT(exp)	1.72	RT(exp)	0.56	RT(exp)	1.83
RT(delta)	2.73 (0)	RT(delta)	1.7 (-0.02)	RT(delta)	0.56 (0)	RT(delta)	1.8 (-0.03)
Area:	4395700	Area:	8814700	Area:	10913000	Area:	15054000
m/z:	259.1890	m/z:	322.1927	m/z:	289.1631	m/z:	303.1789
delta	(mmu): 0.58	delta	(mmu): 0.69	delta	(mmu): 0.52	delta	(mmu): 0.61



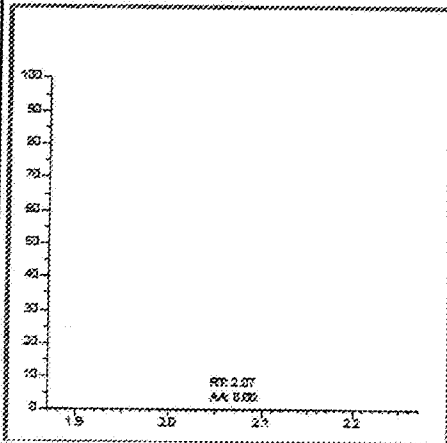
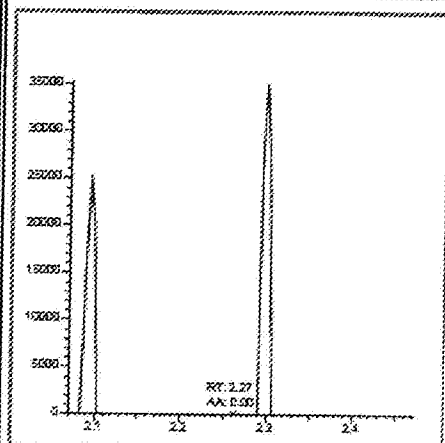
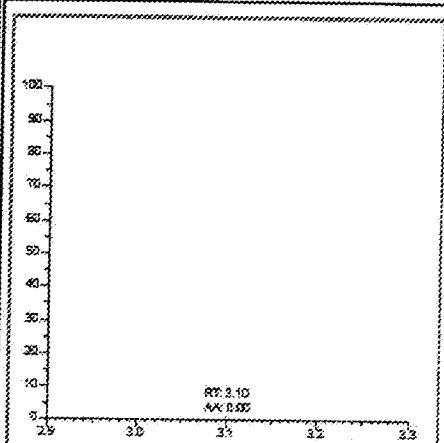
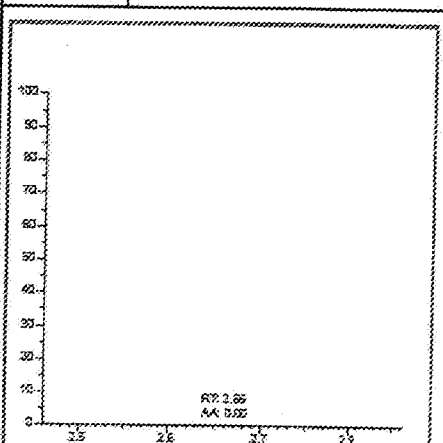
Compound:	<b>morphine</b>	Compound:	<b>hydroxyalprazolam</b>	Compound:	<b>hydroxymidazolam</b>	Compound:	<b>hydroxytriazolam</b>
RT(exp)	0.56	RT(exp)	2.9	RT(exp)	2.67	RT(exp)	2.9
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A

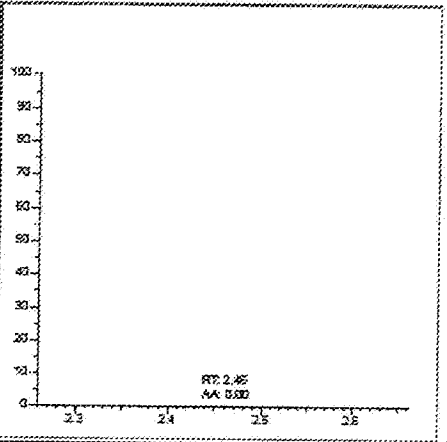
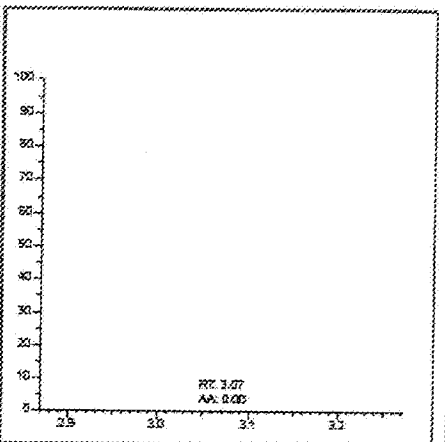
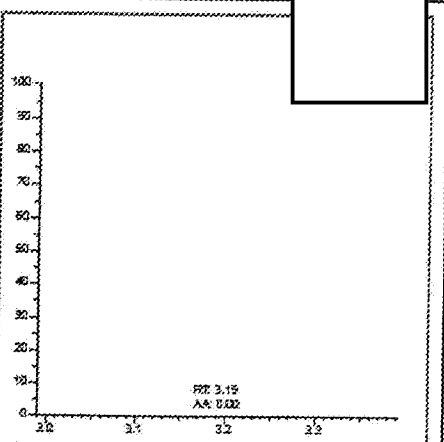
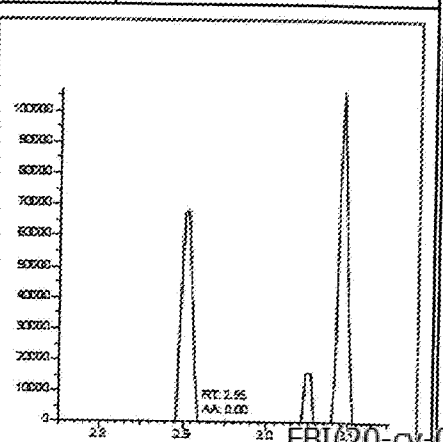


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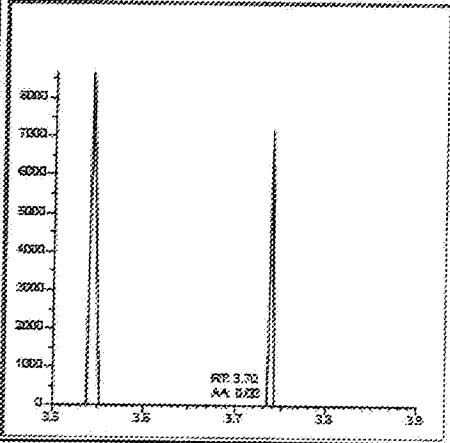
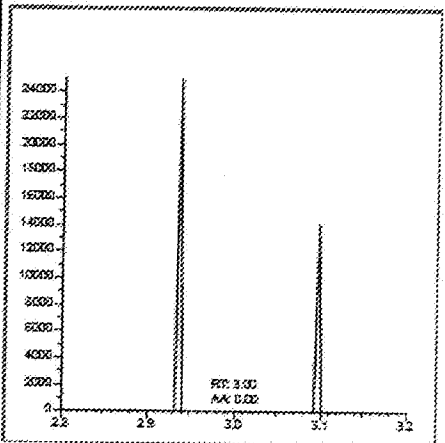
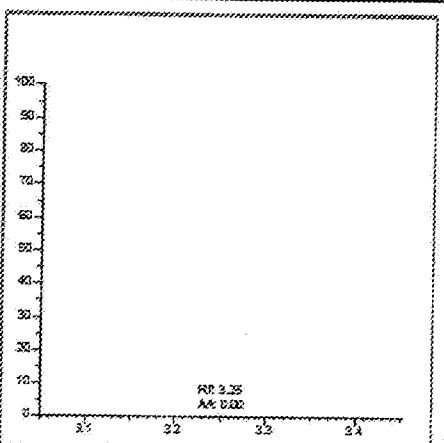
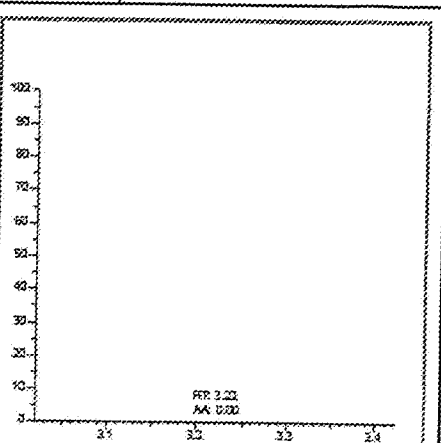
Compound:	<b>7-aminoclonazepam</b>	Compound:	<b>7-aminoflunitrazepam</b>	Compound:	<b>alprazolam</b>	Compound:	<b>bromazepam</b>
RT(exp)	2.07	RT(exp)	2.27	RT(exp)	3.1	RT(exp)	2.66
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

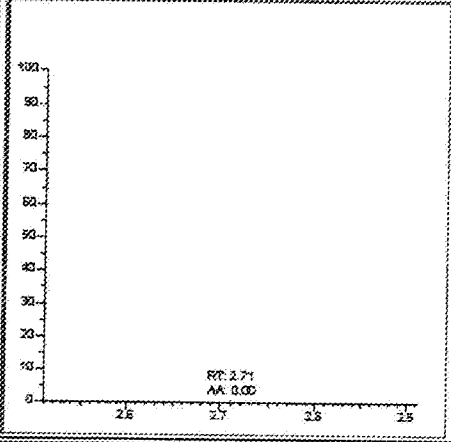
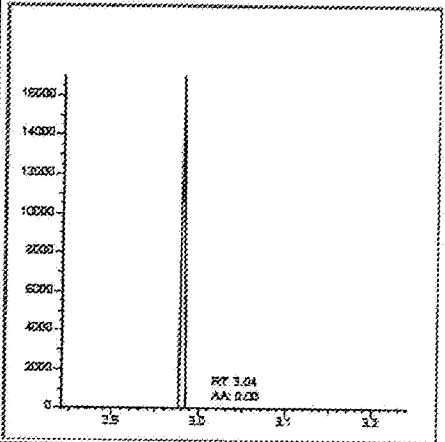
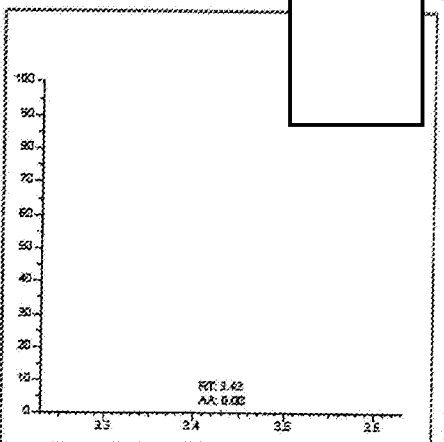
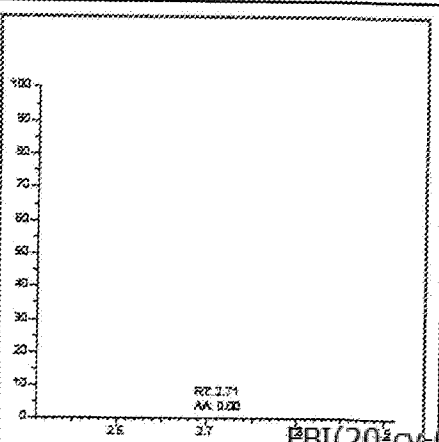
Compound:	<b>chlordiazepoxide</b>	Compound:	<b>clonazepam</b>	Compound:	<b>desalkylflurazepam</b>	Compound:	<b>desmethyflunitrazepam</b>
RT(exp)	2.46	RT(exp)	3.07	RT(exp)	3.19	RT(exp)	2.95
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

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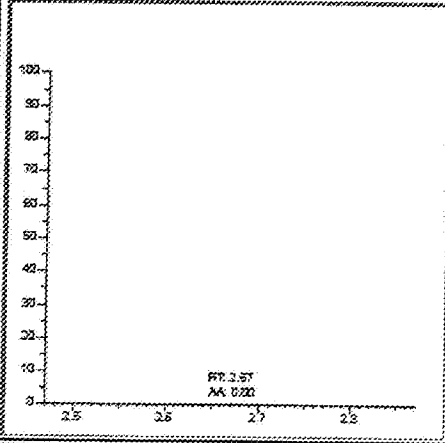
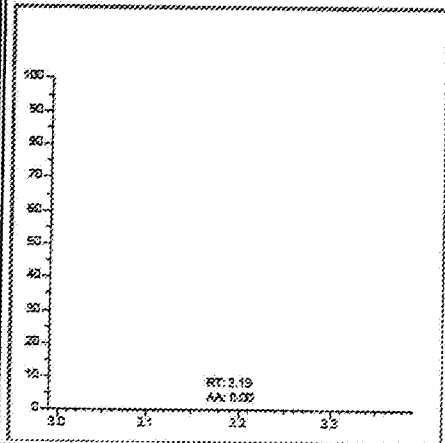
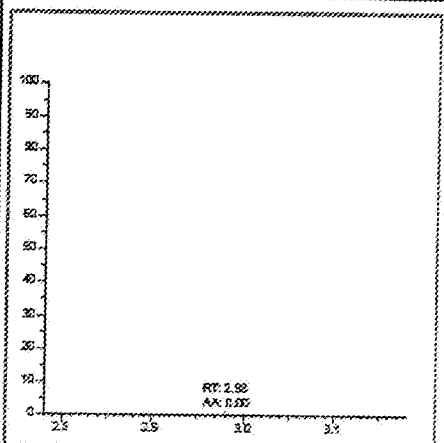
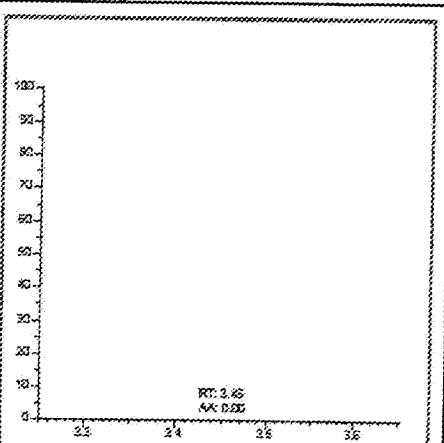
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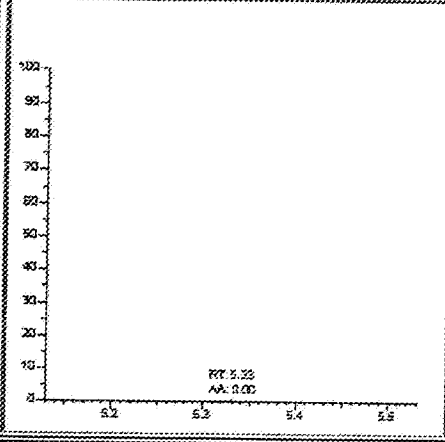
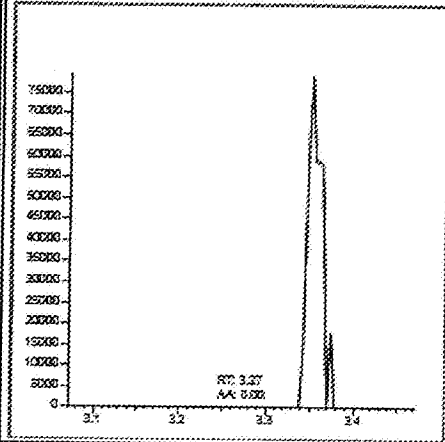
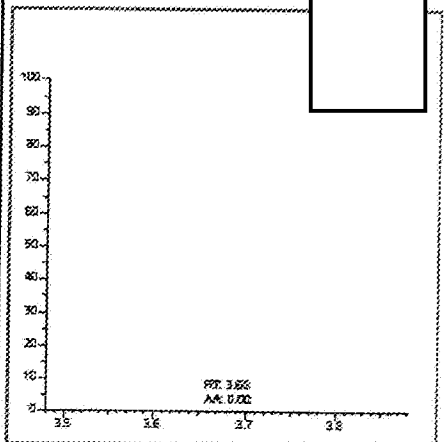
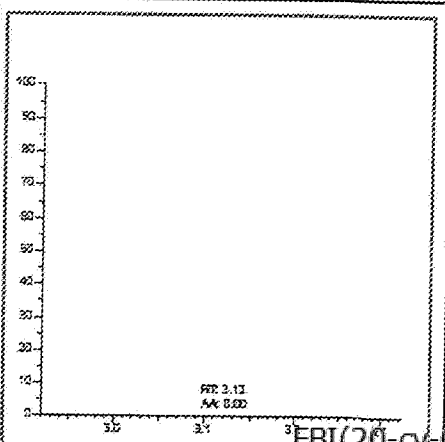
Compound:	<b>diazepam</b>	Compound:	<b>estazolam</b>	Compound:	<b>etizolam</b>	Compound:	<b>flunitrazepam</b>
RT(exp)	3.7	RT(exp)	3	RT(exp)	3.25	RT(exp)	3.22
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>flurazepam</b>	Compound:	<b>lorazepam</b>	Compound:	<b>lormetazepam</b>	Compound:	<b>medazepam</b>
RT(exp)	2.71	RT(exp)	3.04	RT(exp)	3.43	RT(exp)	2.71
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

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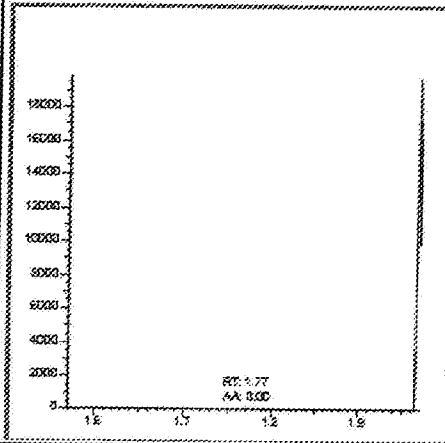
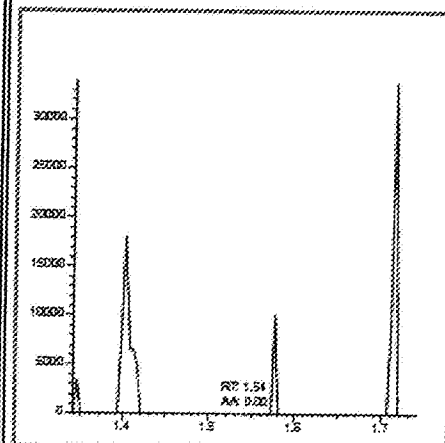
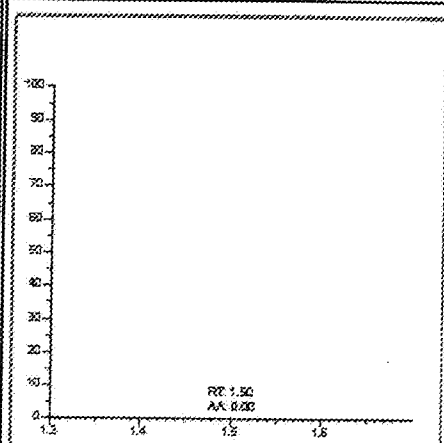
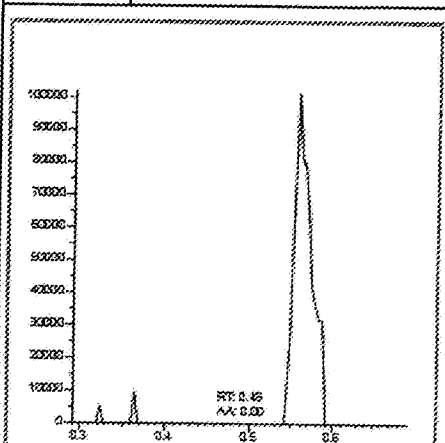
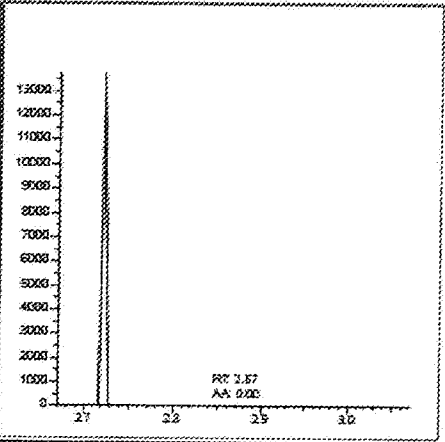
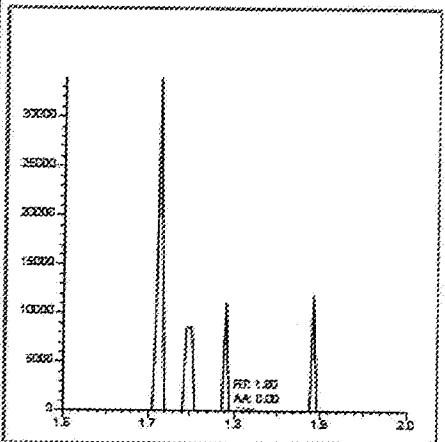
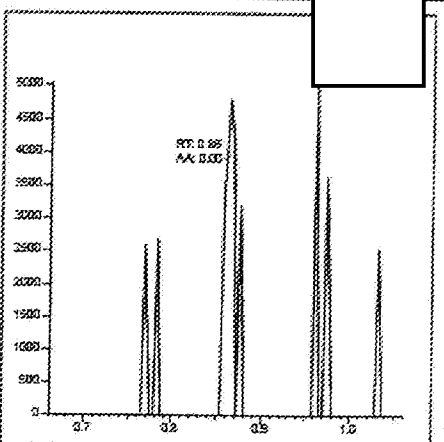
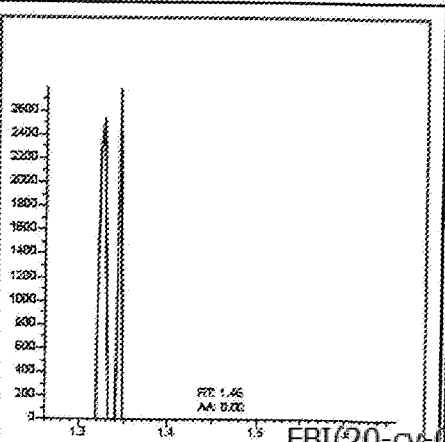
Compound:	<b>midazolam</b>	Compound:	<b>nordiazepam</b>	Compound:	<b>oxazepam</b>	Compound:	<b>phenazepam</b>
RT(exp)	2.67	RT(exp)	3.19	RT(exp)	2.98	RT(exp)	3.45
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>prazepam</b>	Compound:	<b>temazepam</b>	Compound:	<b>tetrazepam</b>	Compound:	<b>triazolam</b>
RT(exp)	5.33	RT(exp)	3.27	RT(exp)	3.68	RT(exp)	3.12
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

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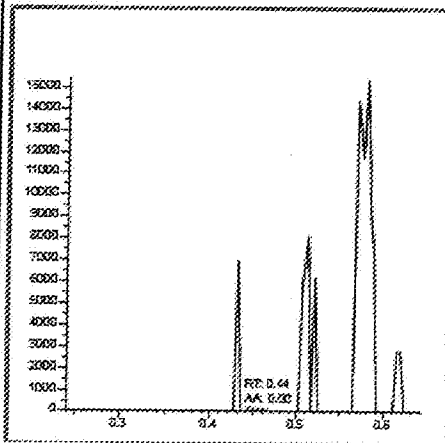
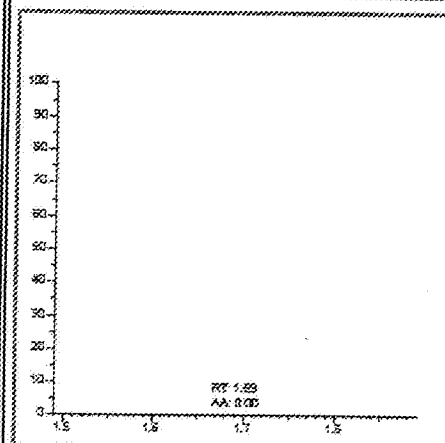
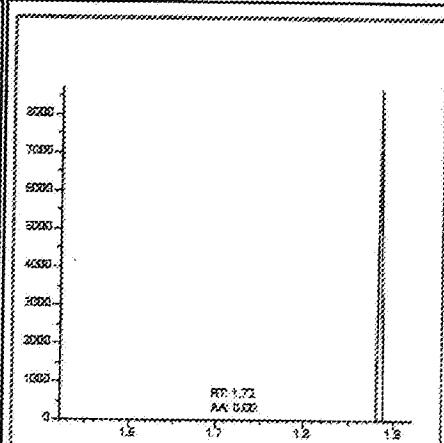
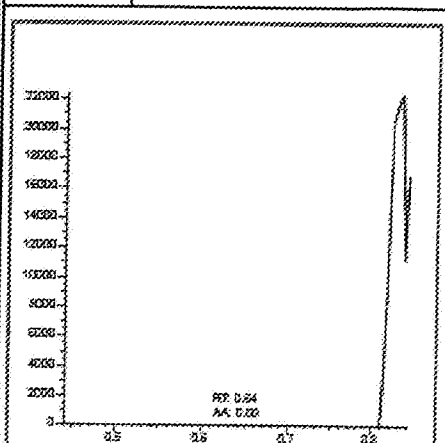


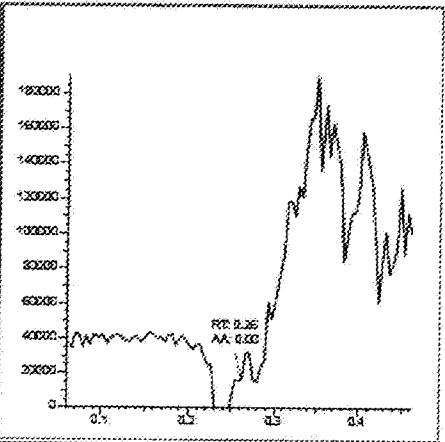
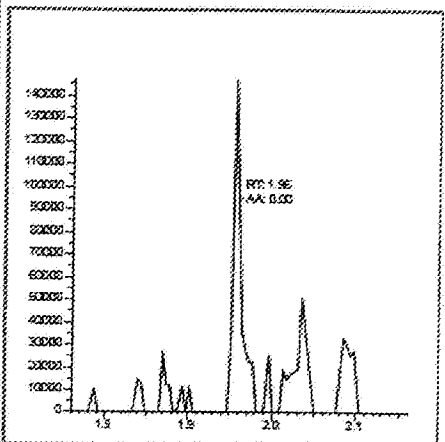
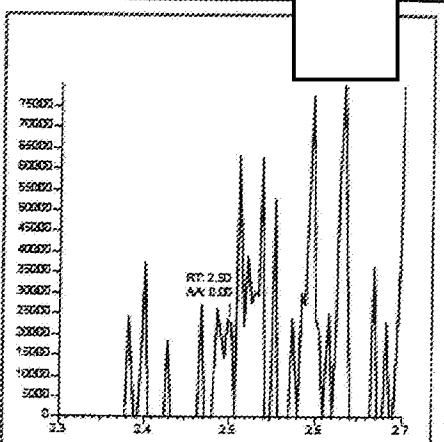
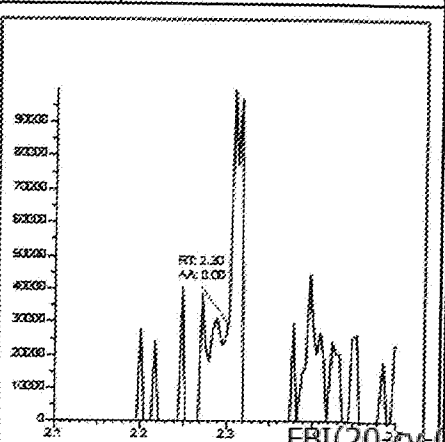
Compound: <b>6-acetylmorphine</b>	Compound: <b>codeine</b>	Compound: <b>dihydrocodeine</b>	Compound: <b>dihydromorphone</b>
RT(exp) 1.77	RT(exp) 1.54	RT(exp) 1.5	RT(exp) 0.49
RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)
Area: N/A	Area: N/A	Area: N/A	Area: N/A
m/z:	m/z:	m/z:	m/z:
delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A
			
Compound: <b>EDDP</b>	Compound: <b>hydrocodone</b>	Compound: <b>hydromorphone</b>	Compound: <b>norcodeine</b>
RT(exp) 2.87	RT(exp) 1.8	RT(exp) 0.86	RT(exp) 1.46
RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)
Area: N/A	Area: N/A	Area: N/A	Area: N/A
m/z:	m/z:	m/z:	m/z:
delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A
			

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Compound:	<b>normorphine</b>	Compound:	<b>noroxycodone</b>	Compound:	<b>oxycodone</b>	Compound:	<b>oxymorphone</b>
RT(exp)	0.44	RT(exp)	1.69	RT(exp)	1.72	RT(exp)	0.64
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>ecgonine methyl ester</b>	Compound:	<b>benzoylecgonine</b>	Compound:	<b>cocaethylene</b>	Compound:	<b>cocaine</b>
RT(exp)	0.26	RT(exp)	1.96	RT(exp)	2.5	RT(exp)	2.3
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

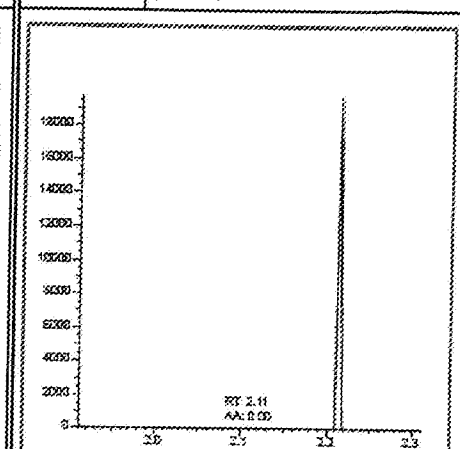
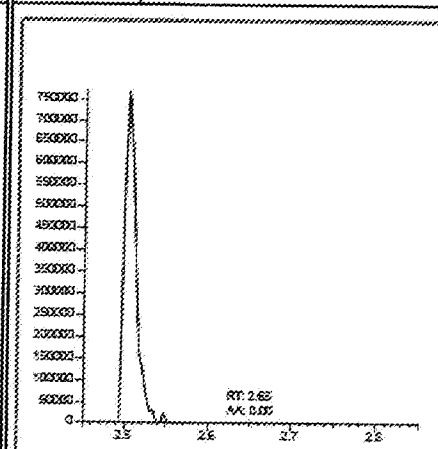
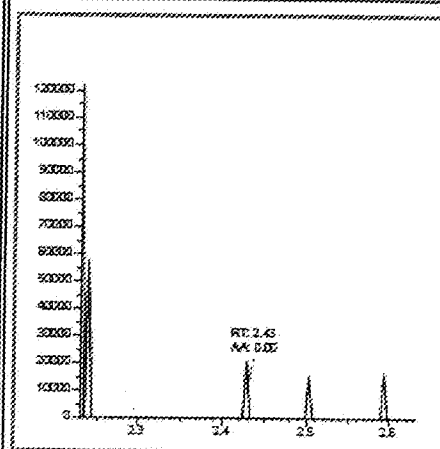
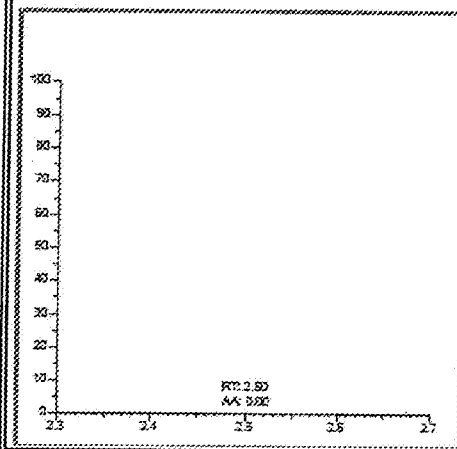
b6 -1  
b7C -1

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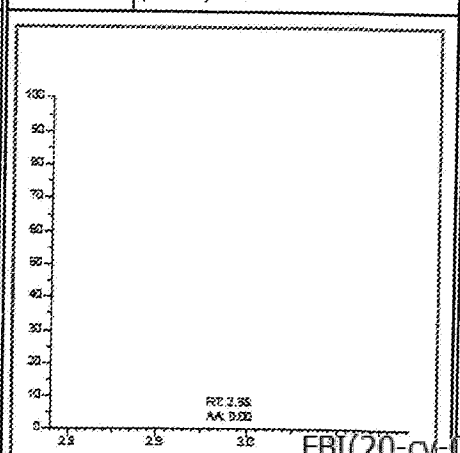
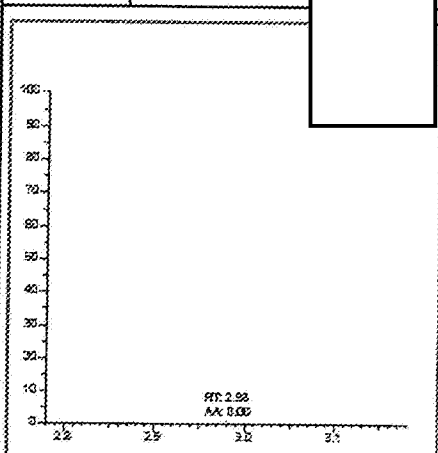
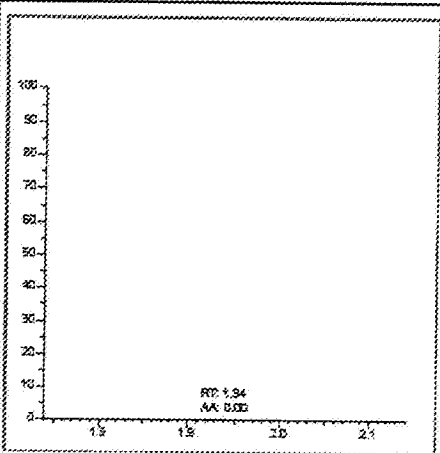
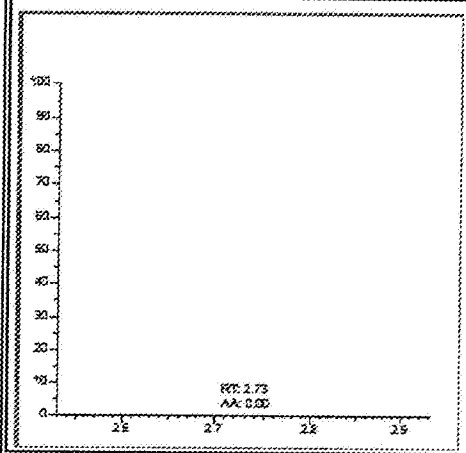
FBI(20-cv-0545)-1322

ncu

Compound:	<b>brompheniramine</b>	Compound:	<b>chlorpheniramine</b>	Compound:	<b>dextromethorphan</b>	Compound:	<b>dextropropanolol</b>
RT(exp)	2.5	RT(exp)	2.43	RT(exp)	2.65	RT(exp)	2.11
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A



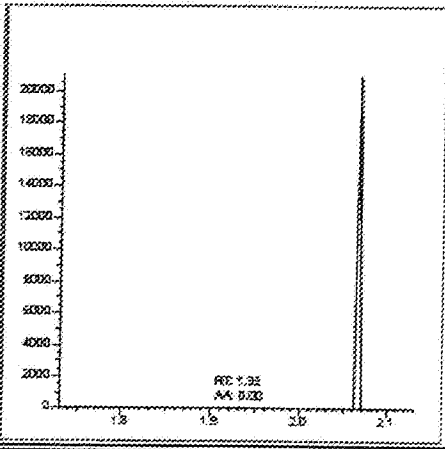
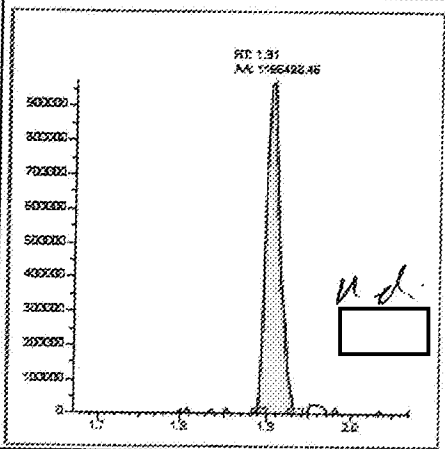
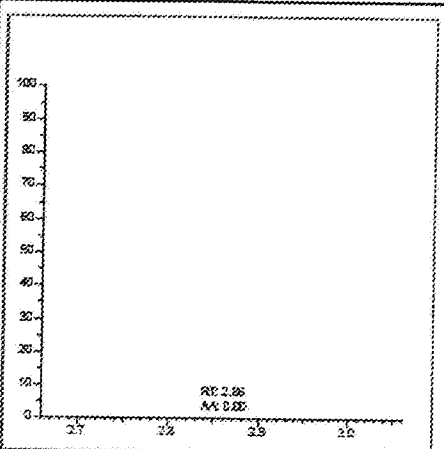
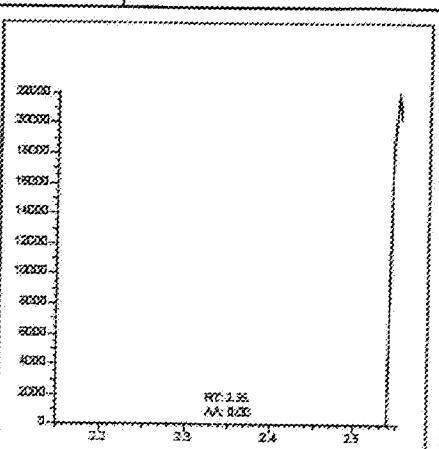
Compound:	<b>diphenhydramine</b>	Compound:	<b>doxylamine</b>	Compound:	<b>hydroxyzine</b>	Compound:	<b>norchlorcyclizine</b>
RT(exp)	2.73	RT(exp)	1.94	RT(exp)	2.98	RT(exp)	2.98
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A



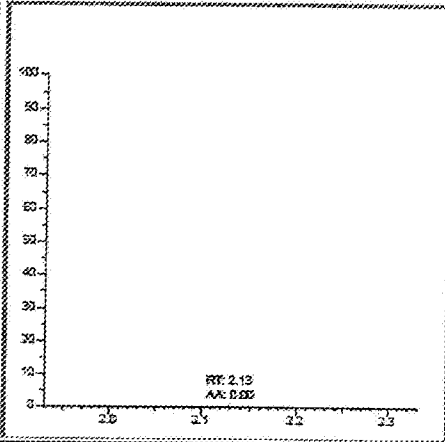
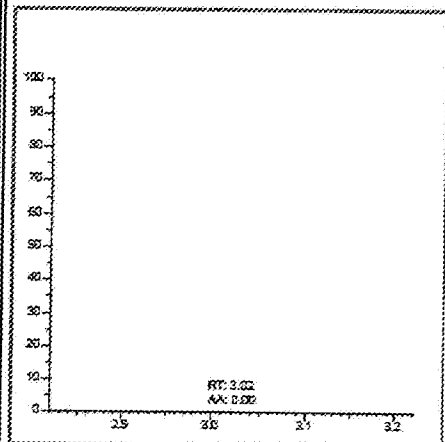
b6 -1  
 b7C -1

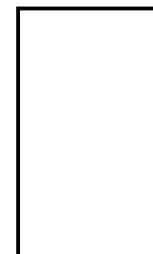
2017-00469 1027-2017

ncu

Compound:	<b>pheniramine</b>	Compound:	<b>tetrahydrozoline</b>	Compound:	<b>zaleplon</b>	Compound:	<b>zolpidem</b>
RT(exp)	1.93	RT(exp)	1.87	RT(exp)	2.86	RT(exp)	2.35
RT(delta)	N/A (N/A)	RT(delta)	1.91 (0.04)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	1166500	Area:	N/A	Area:	N/A
m/z:		m/z:	201.1391	m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): 0.5	delta	(mmu): N/A	delta	(mmu): N/A
							

b6 -1  
b7C -1

Compound:	<b>zopiclone</b>	Compound:	<b>duloxetine</b>
RT(exp)	2.13	RT(exp)	3.02
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A
m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A
			



2017-00469 1027-2017

## Exclusionary Screening by UPLC/FTMS

Batch: 20170928

Method: ExclusionSOP\_TargetingScreening

Inst. Method:

Acquired: 9/29/2017 4:34

Sample Type: Unknown

Vial Position: 2:A.8

Lab Name: FBI Laboratory

Assay: Exclusionary Screening TOX 215

Sample \_\_\_\_\_ sb

Comment \_\_\_\_\_

File \_\_\_\_\_ 20170928 61

Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	d5-alprazolam	+	N/A	N/A (N/A)	314.1215	N/A	N/A	N/A	N/A	
	d5-hydroxalprazolam	+	N/A	N/A (N/A)	330.1165	N/A	N/A	N/A	N/A	
	d4-clonazepam	+	N/A	N/A (N/A)	320.0735	N/A	N/A	N/A	N/A	
	d4-7-aminoclonazepam	+	N/A	N/A (N/A)	290.0993	N/A	N/A	N/A	N/A	
	d5-diazepam	+	N/A	N/A (N/A)	290.1103	N/A	N/A	N/A	N/A	
	d5-oxazepam	+	N/A	N/A (N/A)	292.0896	N/A	N/A	N/A	N/A	
	d6-zolpidem	+	N/A	N/A (N/A)	314.2134	N/A	N/A	N/A	N/A	
	d3-benzoyllecgonine	+	N/A	N/A (N/A)	293.1575	N/A	N/A	N/A	N/A	
	d3-diphenhydramine	+	N/A	N/A (N/A)	259.1884	N/A	N/A	N/A	N/A	
	d6-oxycodone	+	N/A	N/A (N/A)	322.1920	N/A	N/A	N/A	N/A	
	d3-morphine	+	N/A	N/A (N/A)	289.1626	N/A	N/A	N/A	N/A	
	d3-hydrocodone	+	N/A	N/A (N/A)	303.1783	N/A	N/A	N/A	N/A	
	morphine	+	N/A	N/A (N/A)	286.1438	N/A	N/A	N/A	N/A	
	hydroxalprazolam	+	N/A	N/A (N/A)	325.0851	N/A	N/A	N/A	N/A	
	hydroxymidazolam	+	N/A	N/A (N/A)	342.0804	N/A	N/A	N/A	N/A	
	hydroxytriazolam	+	N/A	N/A (N/A)	359.0461	N/A	N/A	N/A	N/A	
	7-aminoclonazepam	+	N/A	N/A (N/A)	286.0742	N/A	N/A	N/A	N/A	
	7-aminoflunitrazepam	+	N/A	N/A (N/A)	284.1194	N/A	N/A	N/A	N/A	
	alprazolam	+	N/A	N/A (N/A)	309.0902	N/A	N/A	N/A	N/A	
	bromazepam	+	N/A	N/A (N/A)	316.0080	N/A	N/A	N/A	N/A	
	chlordiazepoxide	+	N/A	N/A (N/A)	300.0898	N/A	N/A	N/A	N/A	
	clonazepam	+	N/A	N/A (N/A)	316.0484	N/A	N/A	N/A	N/A	
	desalkylflurazepam	+	N/A	N/A (N/A)	289.0539	N/A	N/A	N/A	N/A	
	desmethyflunitrazepam	+	N/A	N/A (N/A)	300.0779	N/A	N/A	N/A	N/A	
	diazepam	+	N/A	N/A (N/A)	285.0789	N/A	N/A	N/A	N/A	
	estazolam	+	N/A	N/A (N/A)	295.0745	N/A	N/A	N/A	N/A	
	etizolam	+	N/A	N/A (N/A)	343.0779	N/A	N/A	N/A	N/A	
	flunitrazepam	+	N/A	N/A (N/A)	314.0936	N/A	N/A	N/A	N/A	
	flurazepam	+	N/A	N/A (N/A)	388.1586	N/A	N/A	N/A	N/A	

b7E -2

b6 -1

b7C -1

2017-09-29 10:27-2017

## Exclusionary Screening by UPLC/FTMS

Batch: 20170928  
 Method: ExclusionSOP\_TargetingScreening  
 Inst. Method:  
 Acquired: 9/29/2017 4:34  
 Sample Type: Unknown  
 Vial Position: 2:A.8

Lab Name: FBI Laboratory  
 Assay: Exclusionary Screening TOX 215

Sample: sb  
 Comment:  
 File: 20170928\_61

Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	lorazepam	+	N/A	N/A (N/A)	321.0192	N/A		N/A N/A	N/A	
	lormetazepam	+	N/A	N/A (N/A)	335.0349	N/A		N/A N/A	N/A	
	medazepam	+	N/A	N/A (N/A)	271.0997	N/A		N/A N/A	N/A	
	midazolam	+	N/A	N/A (N/A)	326.0855	N/A		N/A N/A	N/A	
	nordiazepam	+	N/A	N/A (N/A)	271.0633	N/A		N/A N/A	N/A	
	oxazepam	+	N/A	N/A (N/A)	287.0582	N/A		N/A N/A	N/A	
	phenazepam	+	N/A	N/A (N/A)	348.9738	N/A		N/A N/A	N/A	
	prazepam	+	N/A	N/A (N/A)	325.1102	N/A		N/A N/A	N/A	
	temazepam	+	N/A	N/A (N/A)	301.0738	N/A		N/A N/A	N/A	
	tetrazepam	+	N/A	N/A (N/A)	289.1102	N/A		N/A N/A	N/A	
	triazolam	+	N/A	N/A (N/A)	343.0512	N/A		N/A N/A	N/A	
	6-acetylmorphine	+	N/A	N/A (N/A)	328.1543	N/A		N/A N/A	N/A	
	codeine	+	N/A	N/A (N/A)	300.1594	N/A		N/A N/A	N/A	
	dihydrocodeine	+	N/A	N/A (N/A)	302.1751	N/A		N/A N/A	N/A	
	dihydromorphone	+	N/A	N/A (N/A)	288.1594	N/A		N/A N/A	N/A	
	EDDP	+	N/A	N/A (N/A)	278.1903	N/A		N/A N/A	N/A	
	hydrocodone	+	N/A	N/A (N/A)	300.1594	N/A		N/A N/A	N/A	
	hydromorphone	+	N/A	N/A (N/A)	286.1438	N/A		N/A N/A	N/A	
	norcodeine	+	N/A	N/A (N/A)	286.1438	N/A		N/A N/A	N/A	
	normorphine	+	N/A	N/A (N/A)	272.1281	N/A		N/A N/A	N/A	
	noroxycodone	+	N/A	N/A (N/A)	302.1387	N/A		N/A N/A	N/A	
	oxycodone	+	N/A	N/A (N/A)	316.1543	N/A		N/A N/A	N/A	
	oxymorphone	+	N/A	N/A (N/A)	302.1387	N/A		N/A N/A	N/A	
	ecgonine methyl ester	+	N/A	N/A (N/A)	200.1281	N/A		N/A N/A	N/A	
	benzoylecgonine	+	N/A	N/A (N/A)	290.1387	N/A		N/A N/A	N/A	
	cocaethylene	+	N/A	N/A (N/A)	318.1700	N/A		N/A N/A	N/A	
	cocaine	+	N/A	N/A (N/A)	304.1543	N/A		N/A N/A	N/A	
	brompheniramine	+	N/A	N/A (N/A)	319.0804	N/A		N/A N/A	N/A	
	chlorpheniramine	+	N/A	N/A (N/A)	275.1310	N/A		N/A N/A	N/A	

b7E -2

b6 -1  
 b7C -1

2017-00469 1027-26.1

## Exclusionary Screening by UPLC/FTMS

Batch: 20170928

Method: ExclusionSOP\_TargetingScreening

Inst. Method:

Acquired: 9/29/2017 4:34

Sample Type: Unknown

Vial Position: 2:A.8

Lab Name: FBI Laboratory

Assay: Exclusionary Screening TOX 215

Sample \_\_\_\_\_ **sb**

Comment \_\_\_\_\_

File \_\_\_\_\_ 20170928\_61

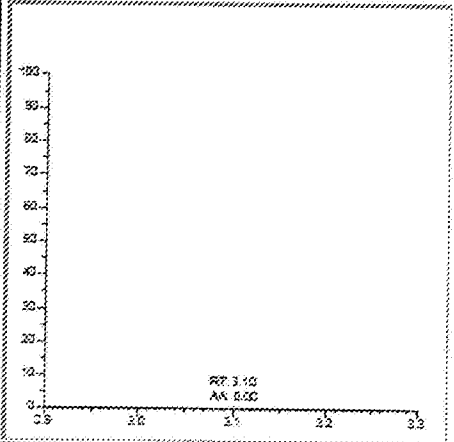
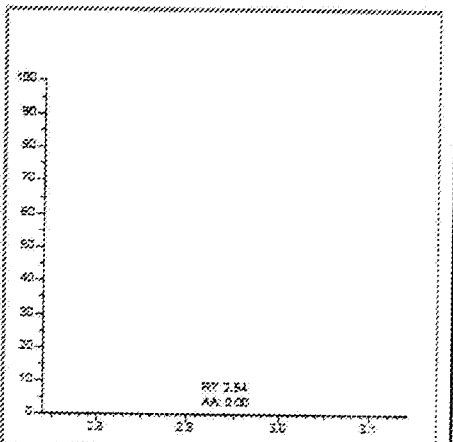
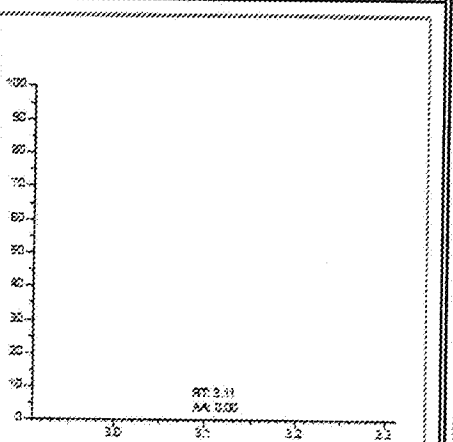
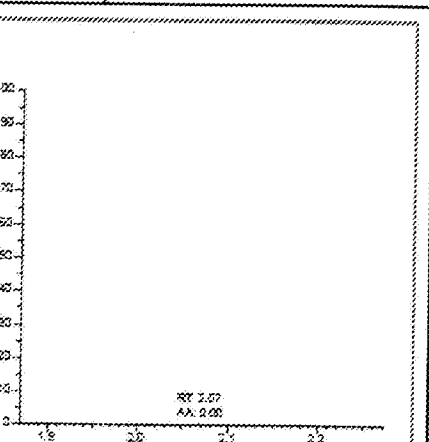
Detected	Target Name	+/-	Area	RT (Measured and Delta)	Expected m/z	Measured m/z	Delta MMU	Isotopic Pattern Score (%)	Num Isotopes Matched	Notes
	dextromethorphan	+	N/A	N/A (N/A)	272.2009	N/A	N/A	N/A	N/A	
	dextrorphan	+	N/A	N/A (N/A)	258.1852	N/A	N/A	N/A	N/A	
	diphenhydramine	+	N/A	N/A (N/A)	256.1696	N/A	N/A	N/A	N/A	
	doxylamine	+	N/A	N/A (N/A)	271.1805	N/A	N/A	N/A	N/A	
	hydroxyzine	+	N/A	N/A (N/A)	375.1834	N/A	N/A	N/A	N/A	
	norchlorcyclizine	+	N/A	N/A (N/A)	287.1310	N/A	N/A	N/A	N/A	
	pheniramine	+	N/A	N/A (N/A)	241.1699	N/A	N/A	N/A	N/A	
	tetrahydrozoline	+	N/A	N/A (N/A)	201.1386	N/A	N/A	N/A	N/A	
	zaleplon	+	N/A	N/A (N/A)	306.1349	N/A	N/A	N/A	N/A	
	zolpidem	+	N/A	N/A (N/A)	308.1757	N/A	N/A	N/A	N/A	
	zopiclone	+	N/A	N/A (N/A)	389.1123	N/A	N/A	N/A	N/A	
	duloxetine	+	N/A	N/A (N/A)	298.1260	N/A	N/A	N/A	N/A	

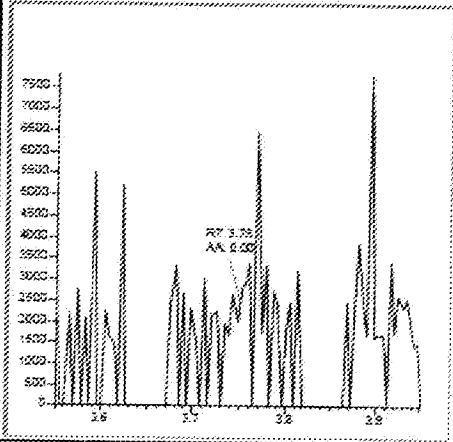
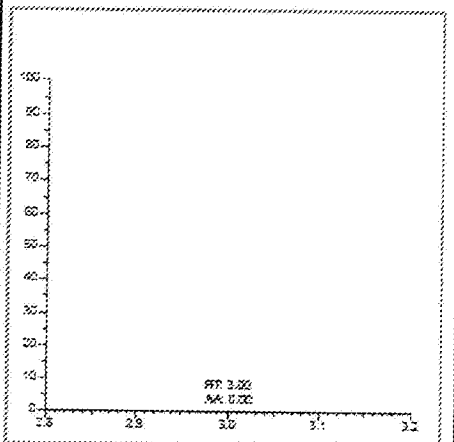
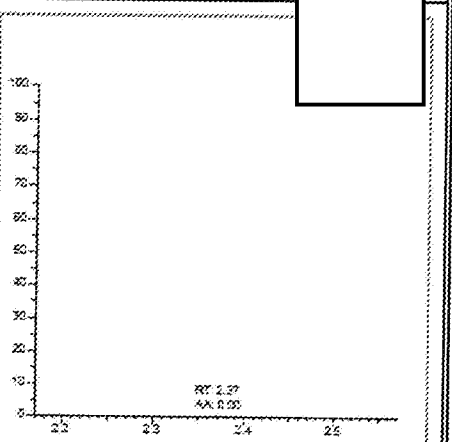
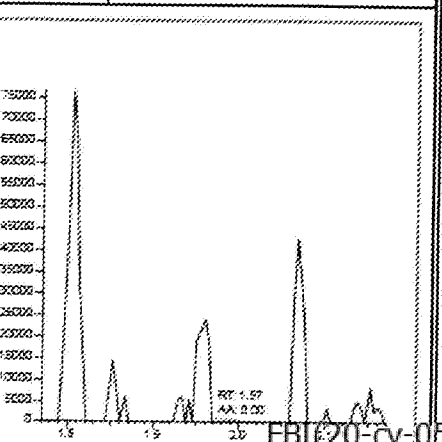
b7E -2

b6 -1  
b7C -1

2017-09-29 10:27-2017

sb

Compound:	<b>d5-alprazolam</b>	Compound:	<b>d5-hydroxalprazolam</b>	Compound:	<b>d4-clonazepam</b>	Compound:	<b>d4-7-aminoclonazepam</b>
RT(exp)	3.1	RT(exp)	2.94	RT(exp)	3.11	RT(exp)	2.07
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

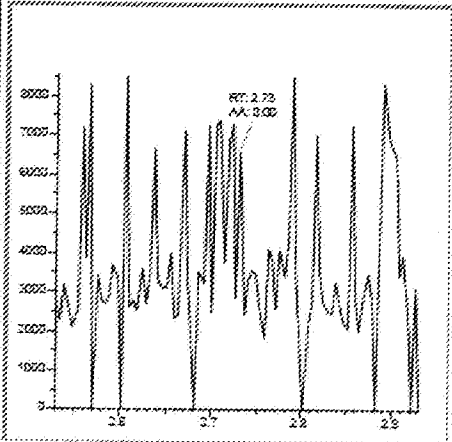
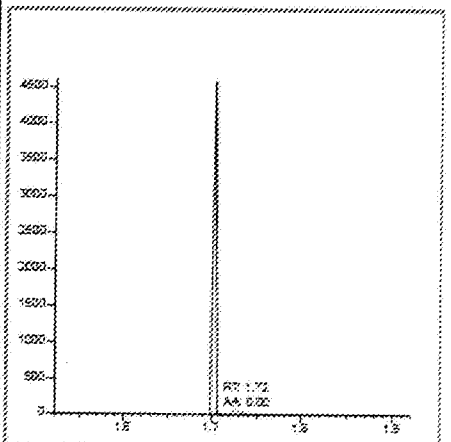
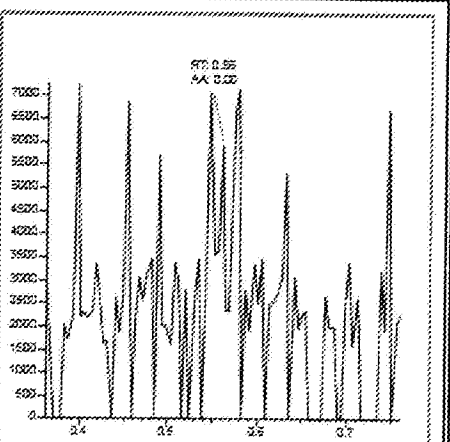
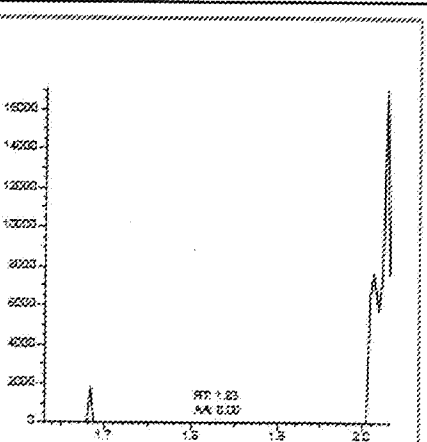
Compound:	<b>d5-diazepam</b>	Compound:	<b>d5-oxazepam</b>	Compound:	<b>d6-zolpidem</b>	Compound:	<b>d3-benzoylecgonine</b>
RT(exp)	3.75	RT(exp)	3	RT(exp)	2.37	RT(exp)	1.97
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

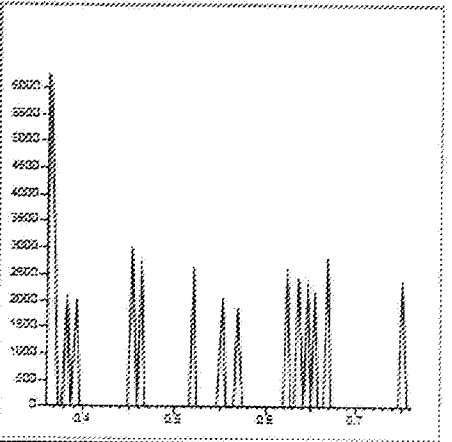
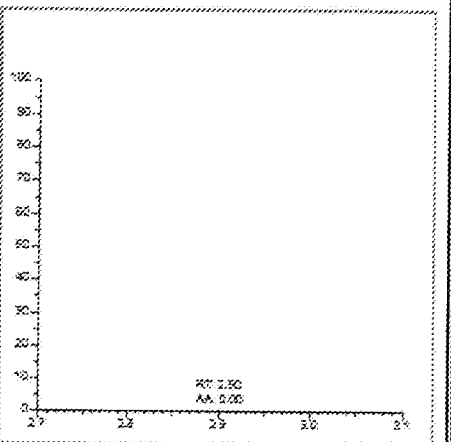
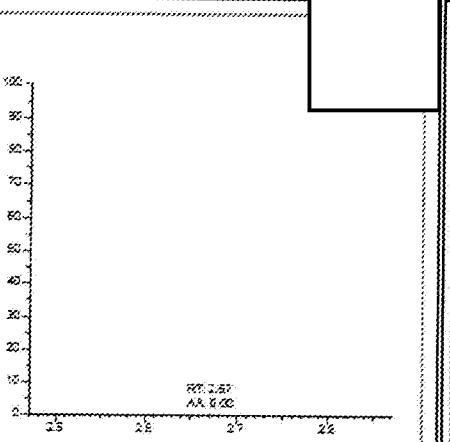
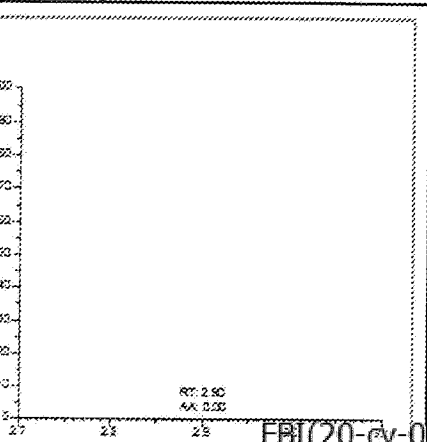
b6 -1  
 b7C -1

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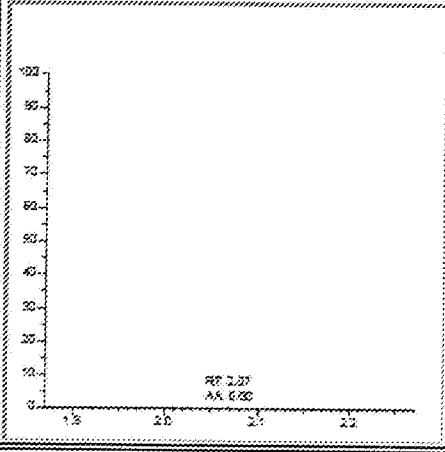
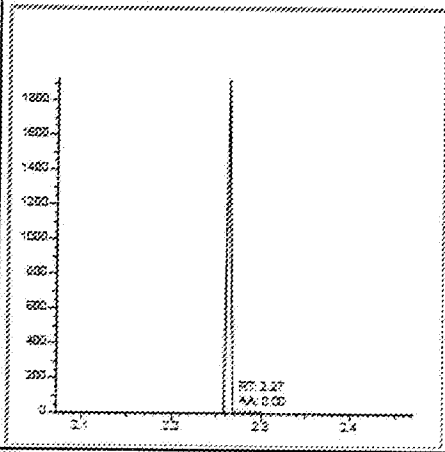
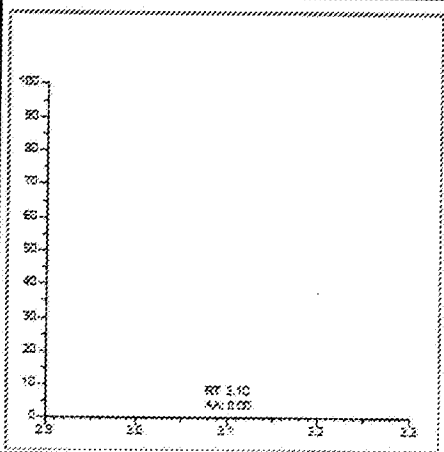
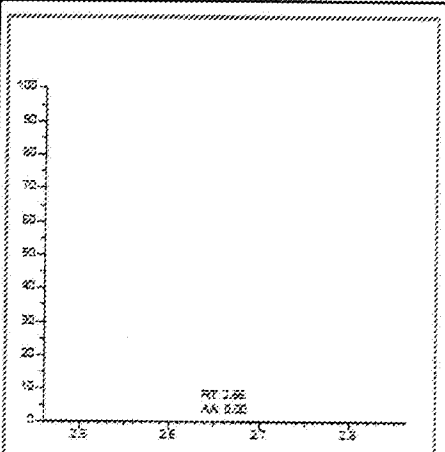
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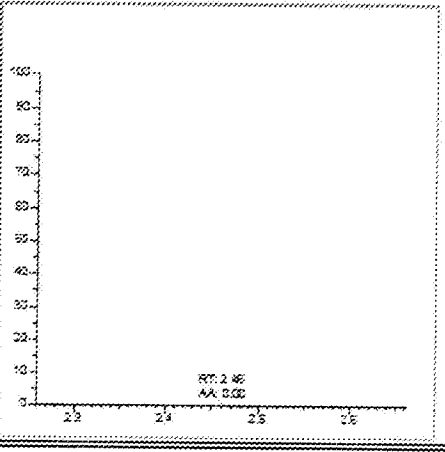
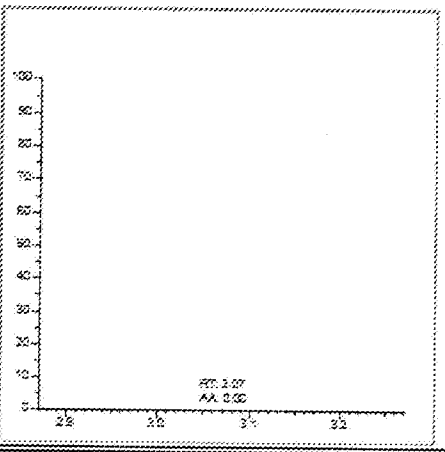
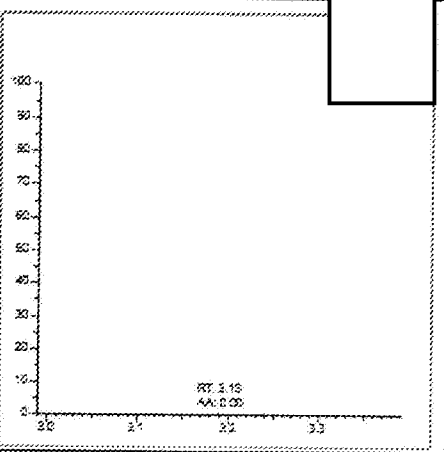
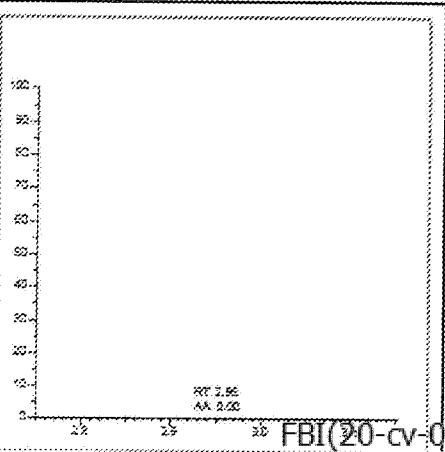
Compound:	<b>d3-diphenhydramine</b>	Compound:	<b>d6-oxycodone</b>	Compound:	<b>d3-morphine</b>	Compound:	<b>d3-hydrocodone</b>
RT(exp)	2.73	RT(exp)	1.72	RT(exp)	0.56	RT(exp)	1.83
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>morphine</b>	Compound:	<b>hydroxyalprazolam</b>	Compound:	<b>hydroxymidazolam</b>	Compound:	<b>hydroxytriazolam</b>
RT(exp)	0.56	RT(exp)	2.9	RT(exp)	2.67	RT(exp)	2.9
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

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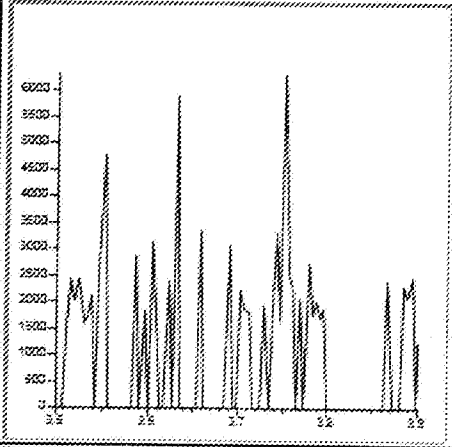
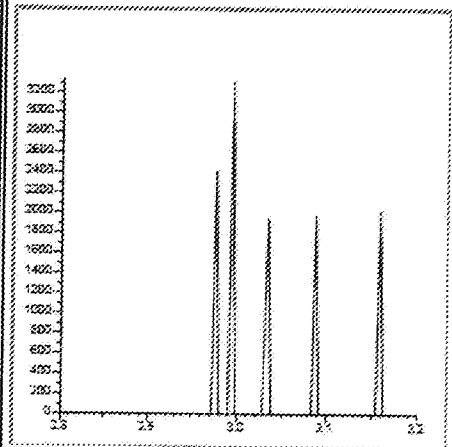
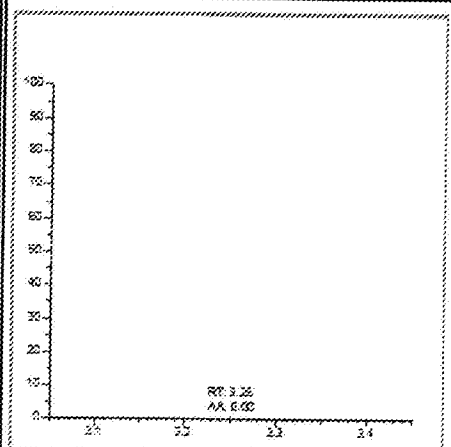
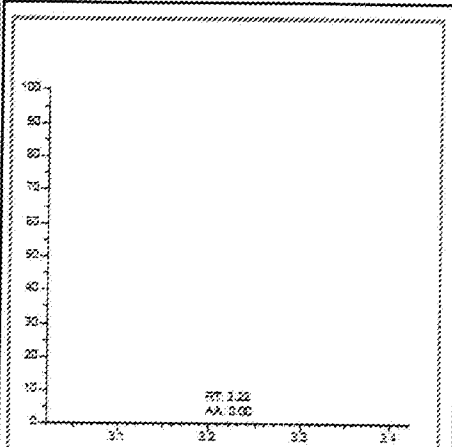
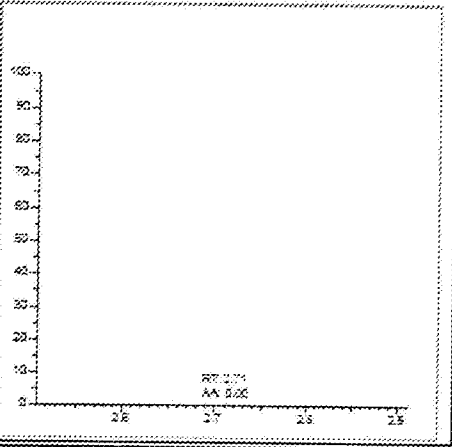
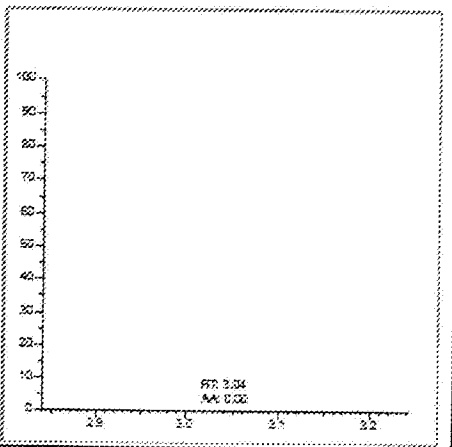
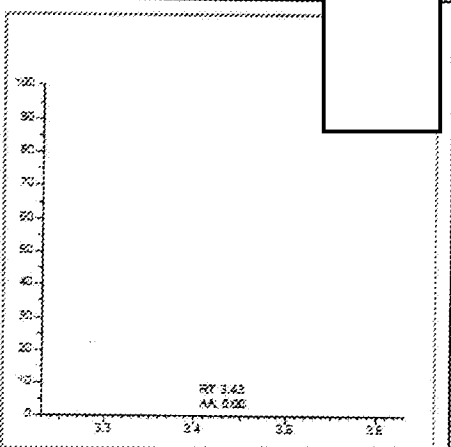
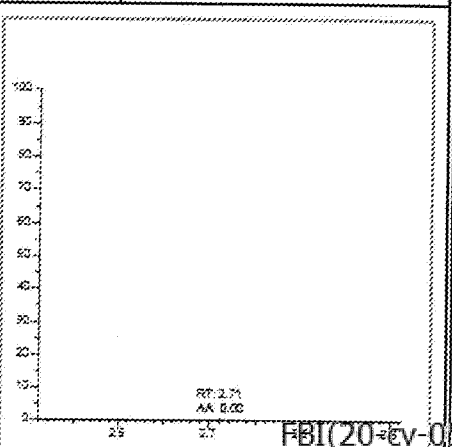
Compound:	<b>7-aminoclonazepam</b>	Compound:	<b>7-aminoflunitrazepam</b>	Compound:	<b>alprazolam</b>	Compound:	<b>bromazepam</b>
RT(exp)	2.07	RT(exp)	2.27	RT(exp)	3.1	RT(exp)	2.66
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>chlordiazepoxide</b>	Compound:	<b>clonazepam</b>	Compound:	<b>desalkylflurazepam</b>	Compound:	<b>desmethyflunitrazepam</b>
RT(exp)	2.46	RT(exp)	3.07	RT(exp)	3.19	RT(exp)	2.95
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

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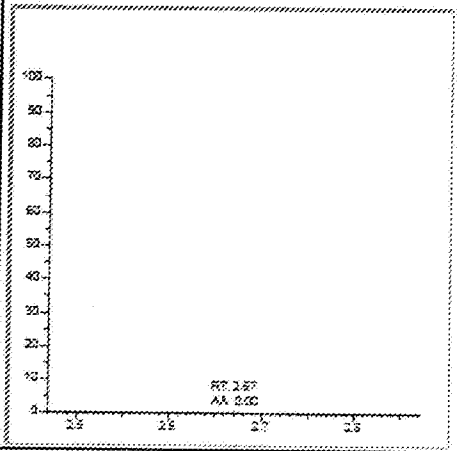
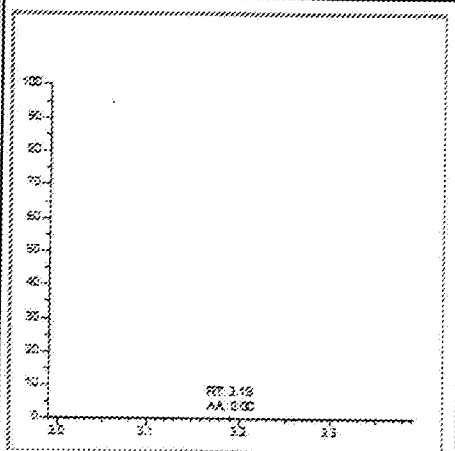
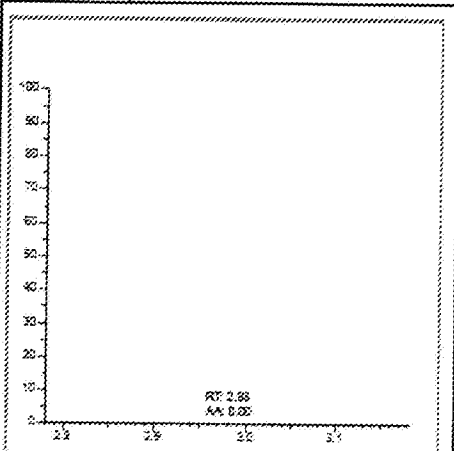
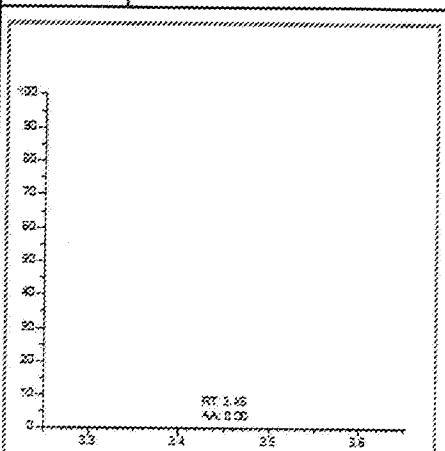
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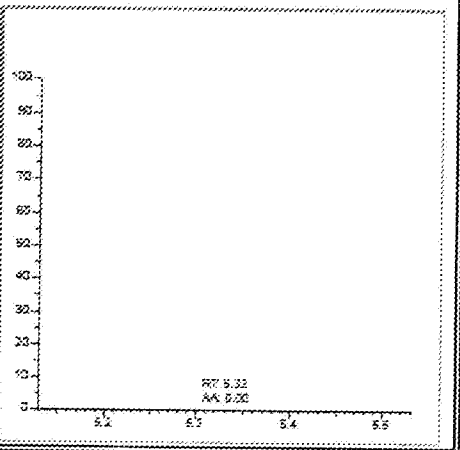
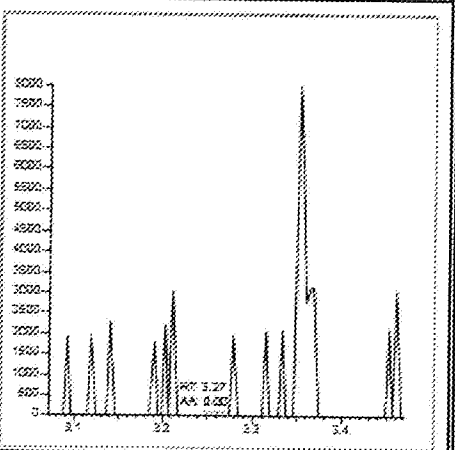
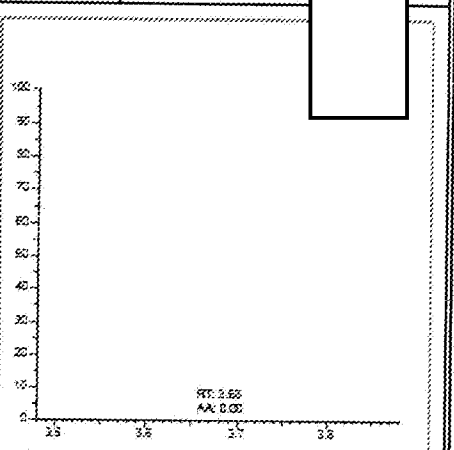
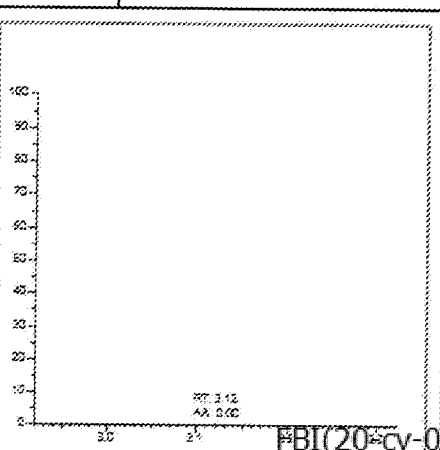
Compound: <b>diazepam</b>	Compound: <b>estazolam</b>	Compound: <b>etizolam</b>	Compound: <b>flunitrazepam</b>
RT(exp) 3.7	RT(exp) 3	RT(exp) 3.25	RT(exp) 3.22
RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)
Area: N/A	Area: N/A	Area: N/A	Area: N/A
m/z:	m/z:	m/z:	m/z:
delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A
			
Compound: <b>flurazepam</b>	Compound: <b>lorazepam</b>	Compound: <b>lormetazepam</b>	Compound: <b>medazepam</b>
RT(exp) 2.71	RT(exp) 3.04	RT(exp) 3.43	RT(exp) 2.71
RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)	RT(delta) N/A (N/A)
Area: N/A	Area: N/A	Area: N/A	Area: N/A
m/z:	m/z:	m/z:	m/z:
delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A	delta (mmu): N/A
			

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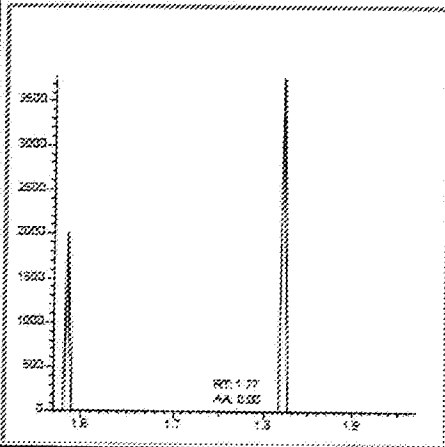
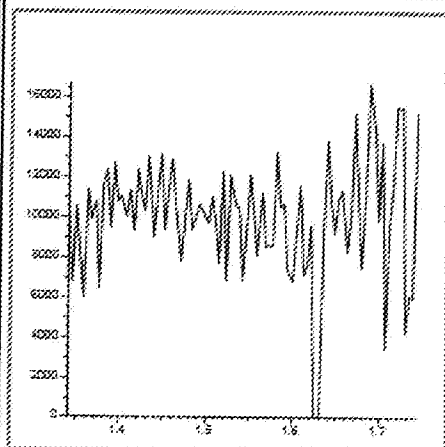
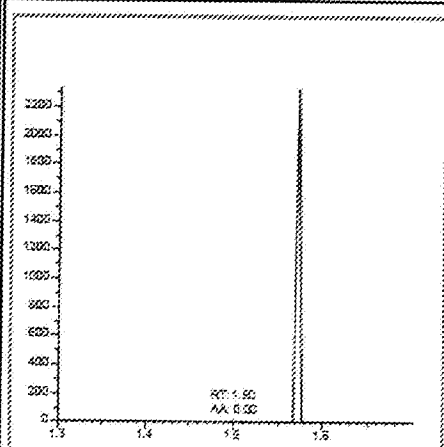
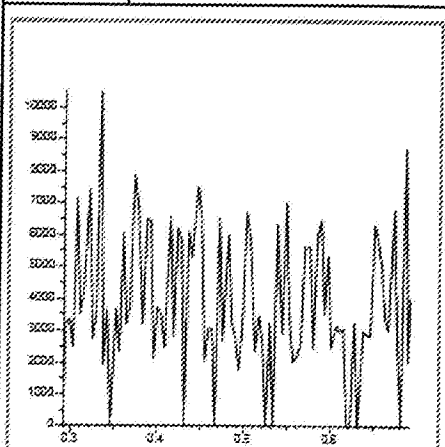
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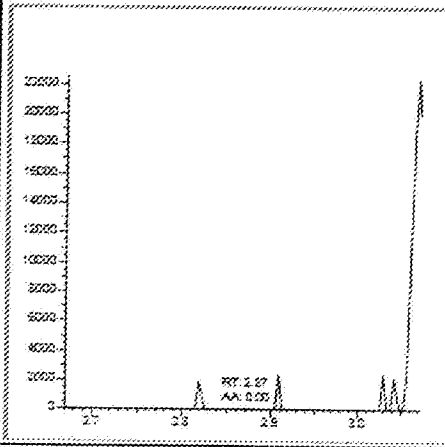
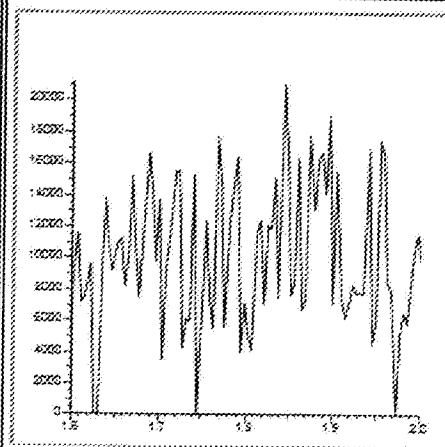
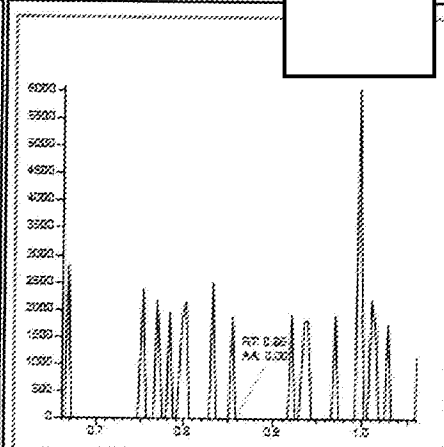
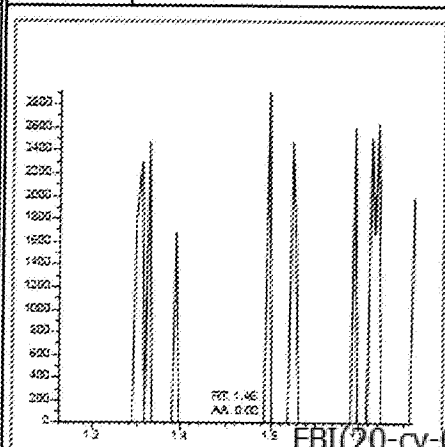
Compound:	<b>midazolam</b>	Compound:	<b>nordiazepam</b>	Compound:	<b>oxazepam</b>	Compound:	<b>phenazepam</b>
RT(exp)	2.67	RT(exp)	3.19	RT(exp)	2.98	RT(exp)	3.45
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>prazepam</b>	Compound:	<b>temazepam</b>	Compound:	<b>tetrazepam</b>	Compound:	<b>triazolam</b>
RT(exp)	5.33	RT(exp)	3.27	RT(exp)	3.68	RT(exp)	3.12
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

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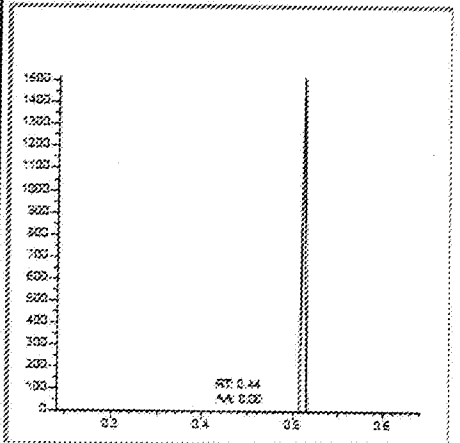
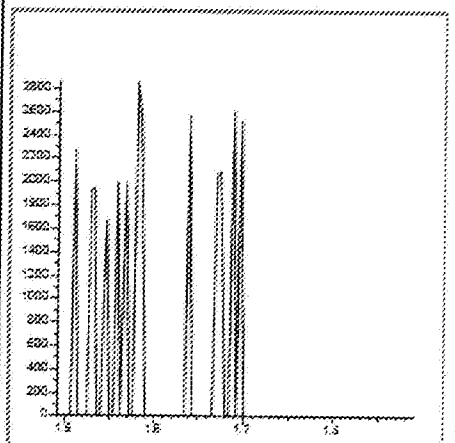
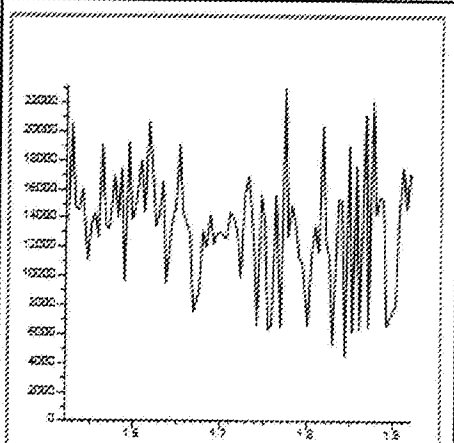
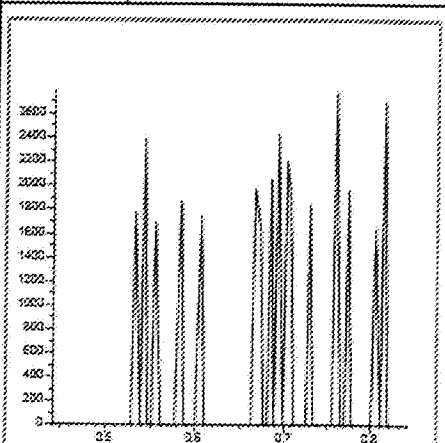
Compound:	<b>6-acetylmorphine</b>	Compound:	<b>codeine</b>	Compound:	<b>dihydrocodeine</b>	Compound:	<b>dihydromorphone</b>
RT(exp)	1.77	RT(exp)	1.54	RT(exp)	1.5	RT(exp)	0.49
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

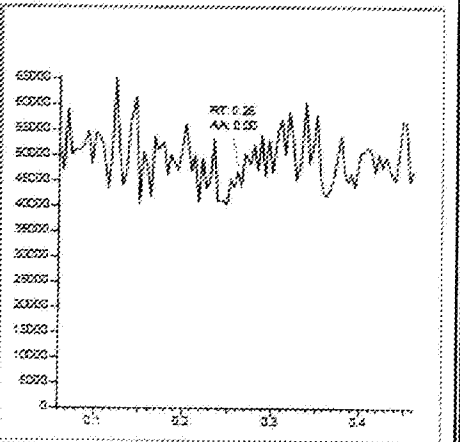
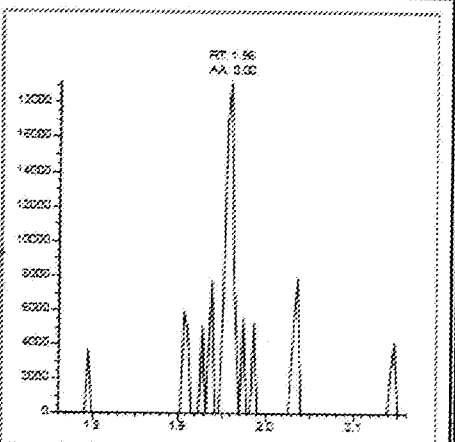
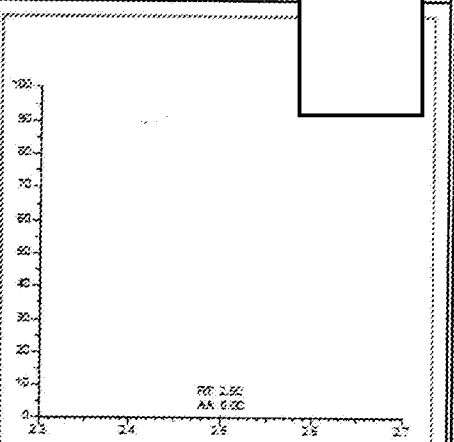
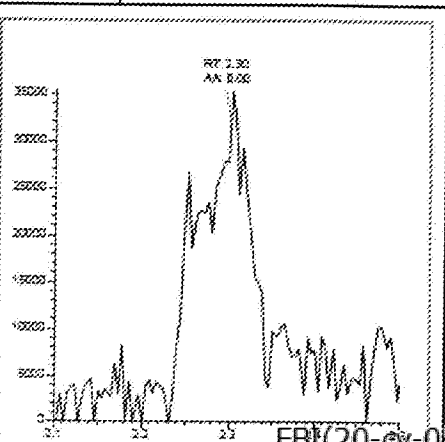
Compound:	<b>EDDP</b>	Compound:	<b>hydrocodone</b>	Compound:	<b>hydromorphone</b>	Compound:	<b>norcodeine</b>
RT(exp)	2.87	RT(exp)	1.8	RT(exp)	0.86	RT(exp)	1.46
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

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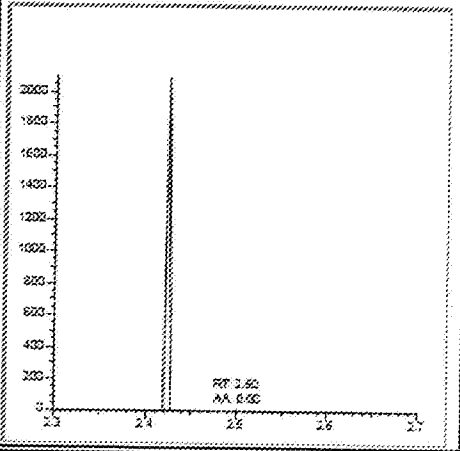
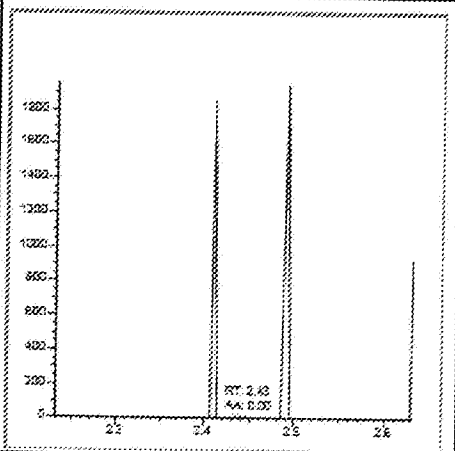
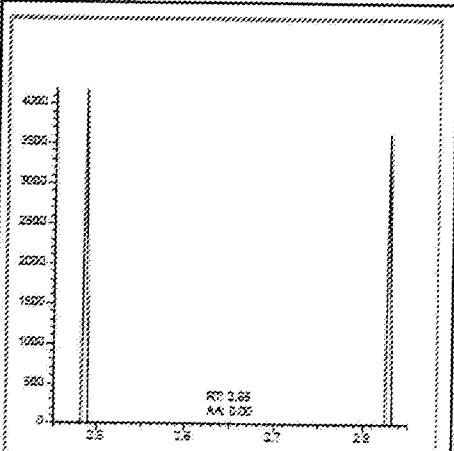
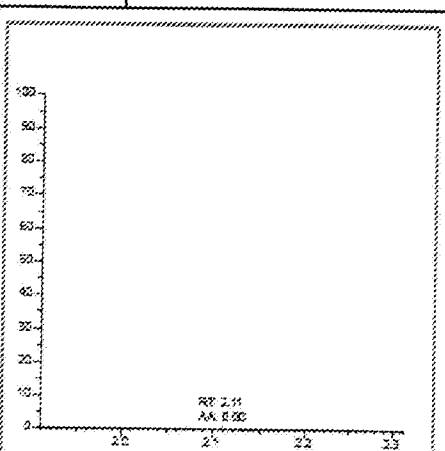
Compound:	<b>normorphine</b>	Compound:	<b>noroxycodone</b>	Compound:	<b>oxycodone</b>	Compound:	<b>oxymorphone</b>
RT(exp)	0.44	RT(exp)	1.69	RT(exp)	1.72	RT(exp)	0.64
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

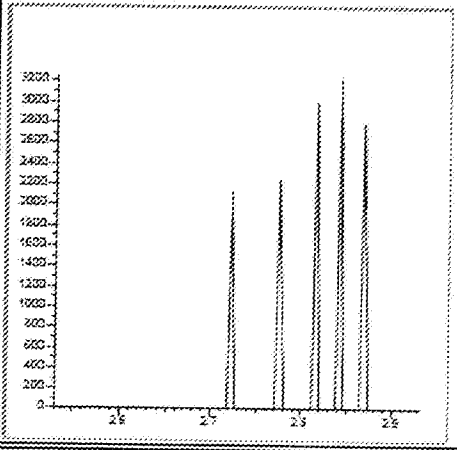
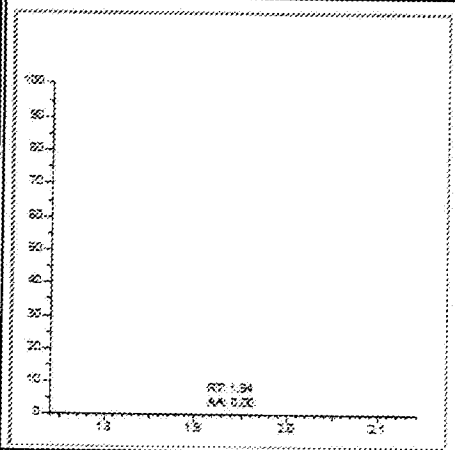
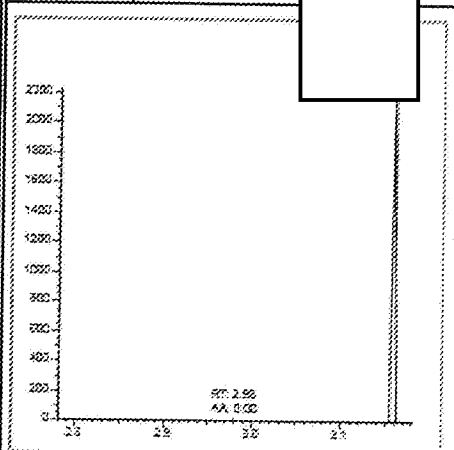
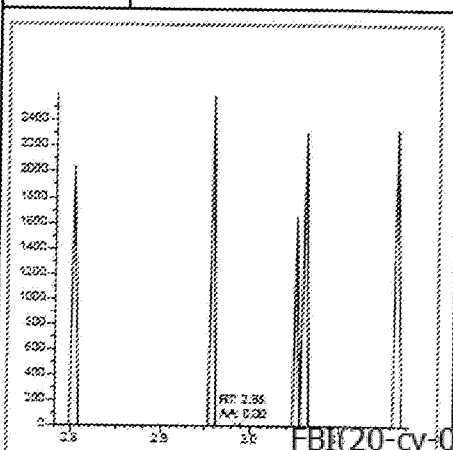
Compound:	<b>ecgonine methyl ester</b>	Compound:	<b>benzoylecgonine</b>	Compound:	<b>cocaethylene</b>	Compound:	<b>cocaine</b>
RT(exp)	0.26	RT(exp)	1.96	RT(exp)	2.5	RT(exp)	2.3
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

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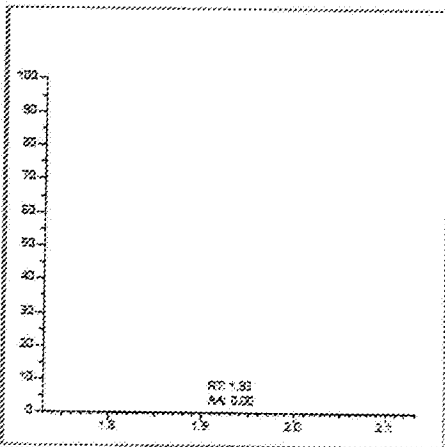
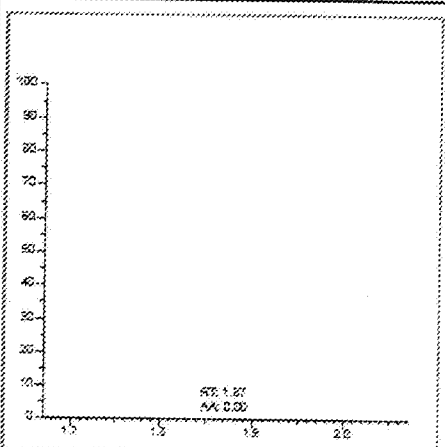
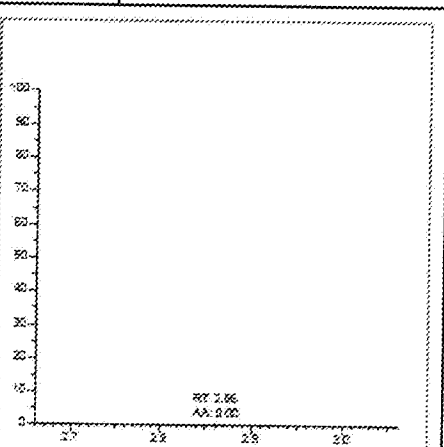
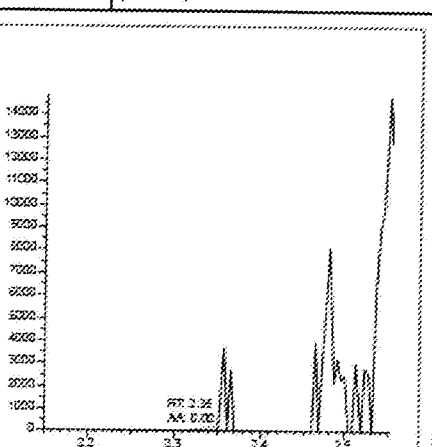
Compound:	<b>brompheniramine</b>	Compound:	<b>chlorpheniramine</b>	Compound:	<b>dextromethorphan</b>	Compound:	<b>dextrorphan</b>
RT(exp)	2.5	RT(exp)	2.43	RT(exp)	2.65	RT(exp)	2.11
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

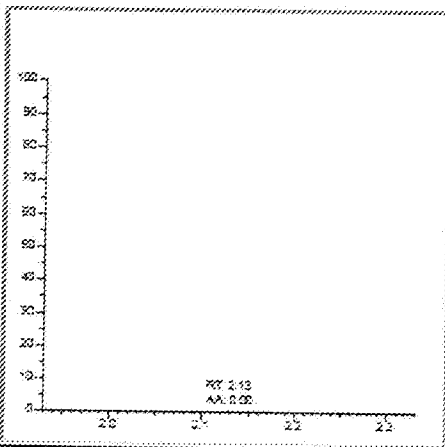
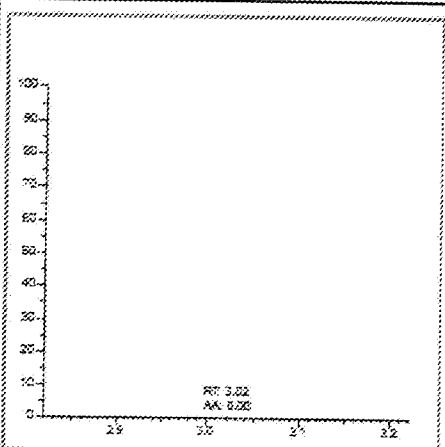
Compound:	<b>diphenhydramine</b>	Compound:	<b>doxylamine</b>	Compound:	<b>hydroxyzine</b>	Compound:	<b>norchlorcyclizine</b>
RT(exp)	2.73	RT(exp)	1.94	RT(exp)	2.98	RT(exp)	2.98
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

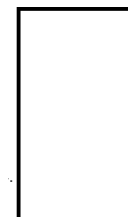
b6 -1  
 b7C -1

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sb

Compound:	<b>pheniramine</b>	Compound:	<b>tetrahydrozoline</b>	Compound:	<b>zaleplon</b>	Compound:	<b>zolpidem</b>
RT(exp)	1.93	RT(exp)	1.87	RT(exp)	2.86	RT(exp)	2.35
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A	Area:	N/A	Area:	N/A
m/z:		m/z:		m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A	delta	(mmu): N/A
							

Compound:	<b>zopiclone</b>	Compound:	<b>duloxetine</b>
RT(exp)	2.13	RT(exp)	3.02
RT(delta)	N/A (N/A)	RT(delta)	N/A (N/A)
Area:	N/A	Area:	N/A
m/z:		m/z:	
delta	(mmu): N/A	delta	(mmu): N/A
			



b6 -1  
b7C -1

2017-00469 1027-2017



2017-00469

**ACID-NEUTRAL DRUG SCREEN  
(GC-MS-PIEI Analysis)**

**Item 2 Urine**

*not detected*  
[redacted]

b6 -1  
b7C -1

**09/25/2017**

[redacted]

b6 -1  
b7C -1

Analysis — [redacted]  
Examiner [redacted]

\_\_\_\_\_ Pages, including this cover

(17)

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b6 -1  
b7C -1

FBI(2

[redacted]

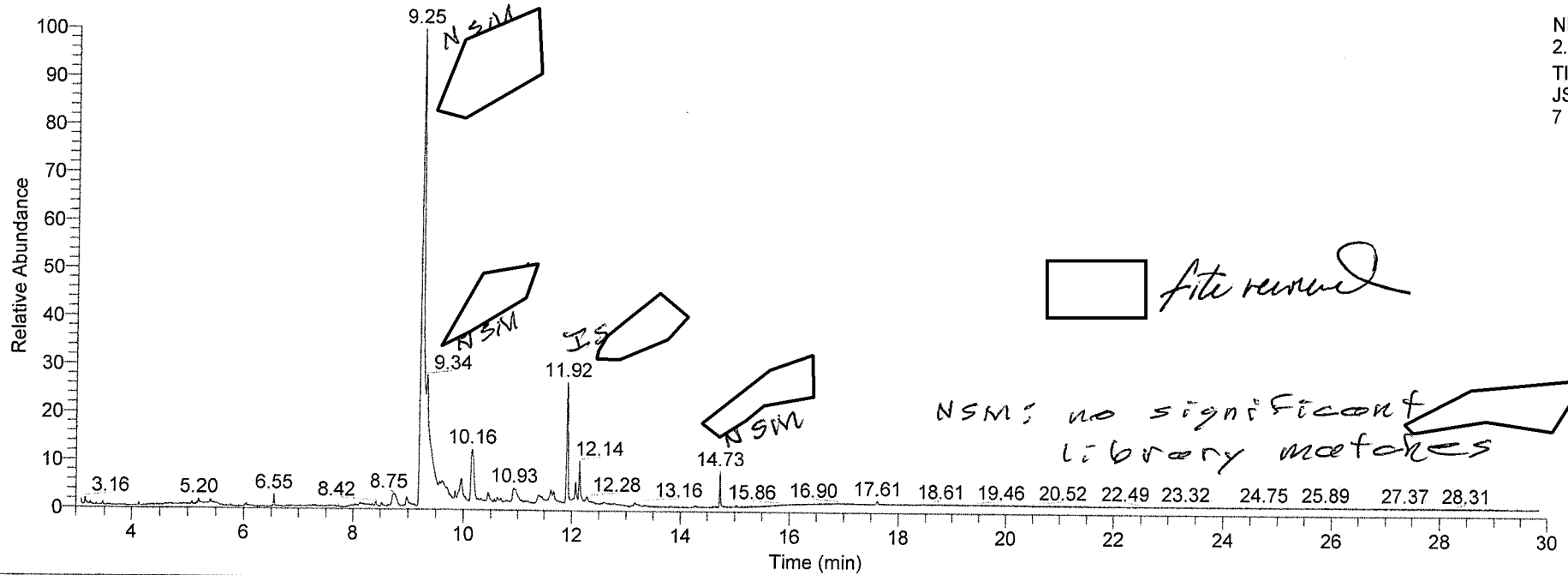
37

9/26/2017 7:36:19 AM

2017-00469 Item 2 Urine

b7E -2

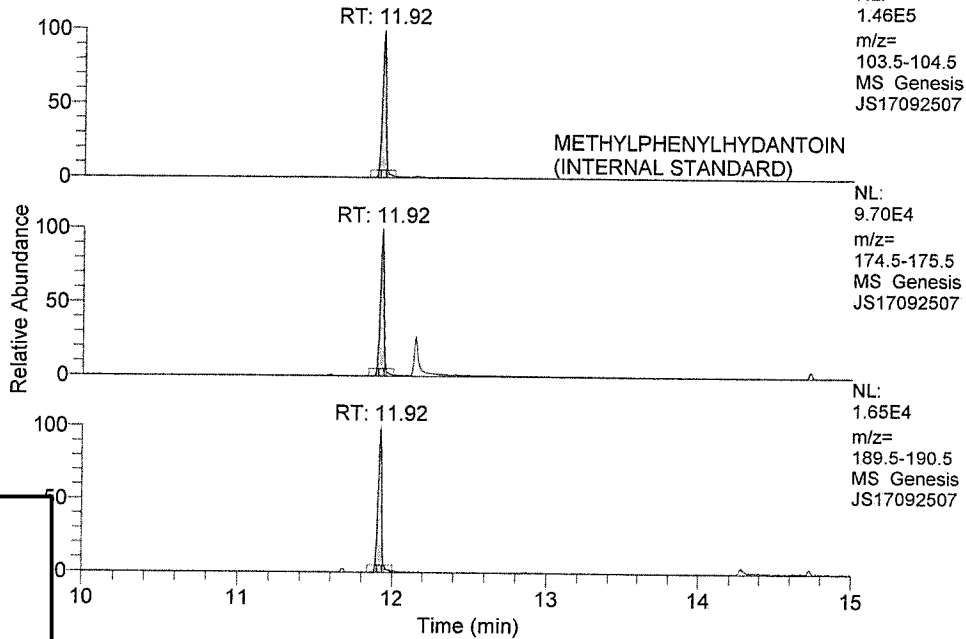
RT: 3.00 - 30.00



NL:  
2.62E6  
TIC MS  
JS1709250  
7

b6 -1  
b7C -1

RT: 10.00 - 15.00

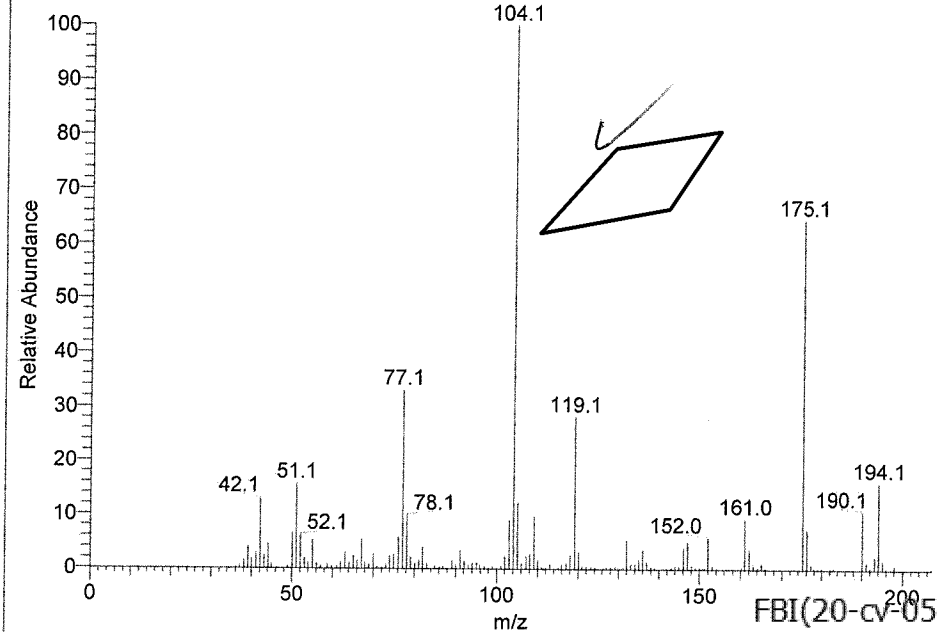


NL:  
1.46E5  
m/z=  
103.5-104.5  
MS Genesis  
JS17092507

NL:  
9.70E4  
m/z=  
174.5-175.5  
MS Genesis  
JS17092507

NL:  
1.65E4  
m/z=  
189.5-190.5  
MS Genesis  
JS17092507

JS17092507 #1651 RT: 11.92 AV: 1 NL: 1.33E5  
T: + c EI Full ms [0.00-207.00]



b6 -1  
b7C -1

FBI(20-cv-0545)-1338

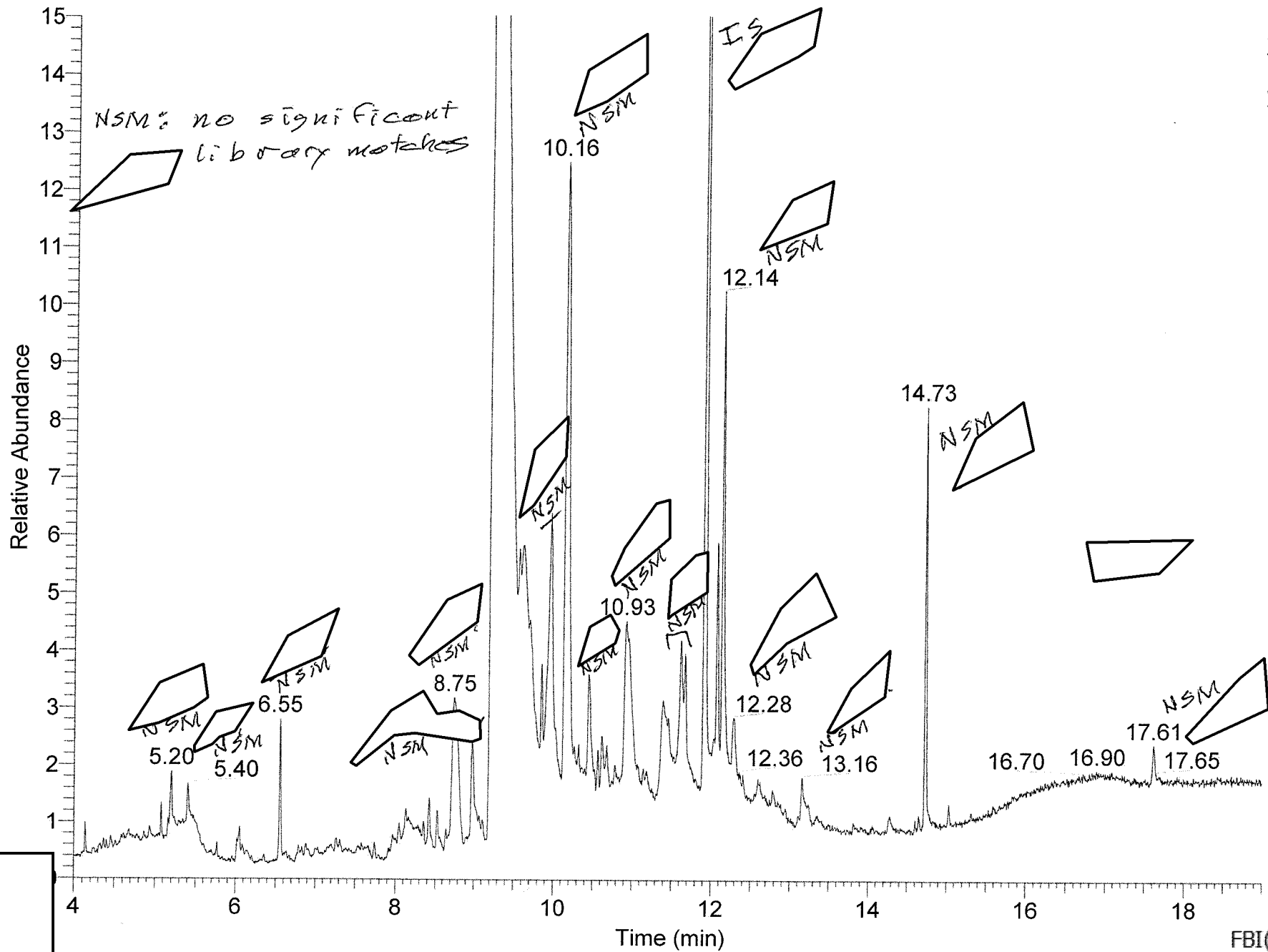
2017-00469 1027-2017

RT: 4.00 - 19.00

NL:  
2.62E6  
TIC MS  
JS1709250  
7

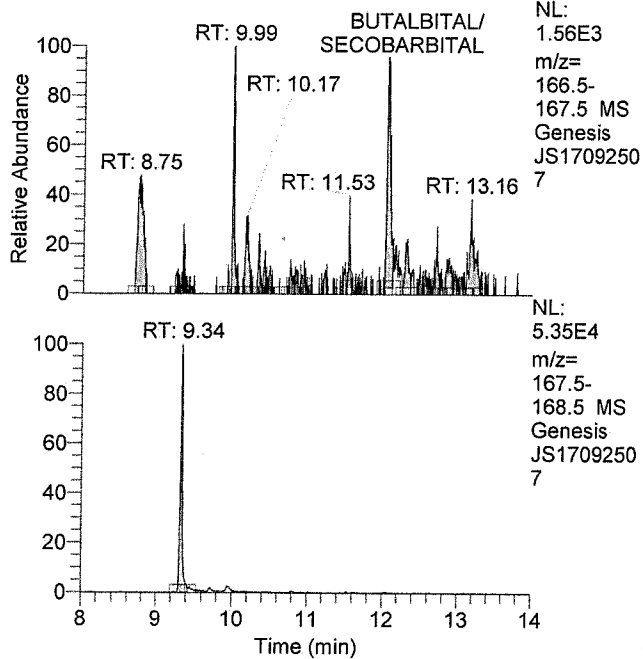
b6 -1  
b7C -1

b6 -1  
b7C -1

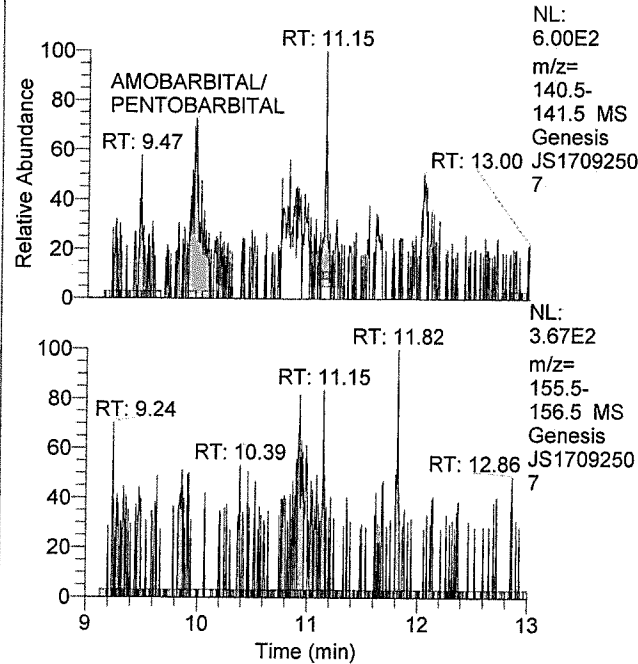


FBI(20-cv-0545)-1339

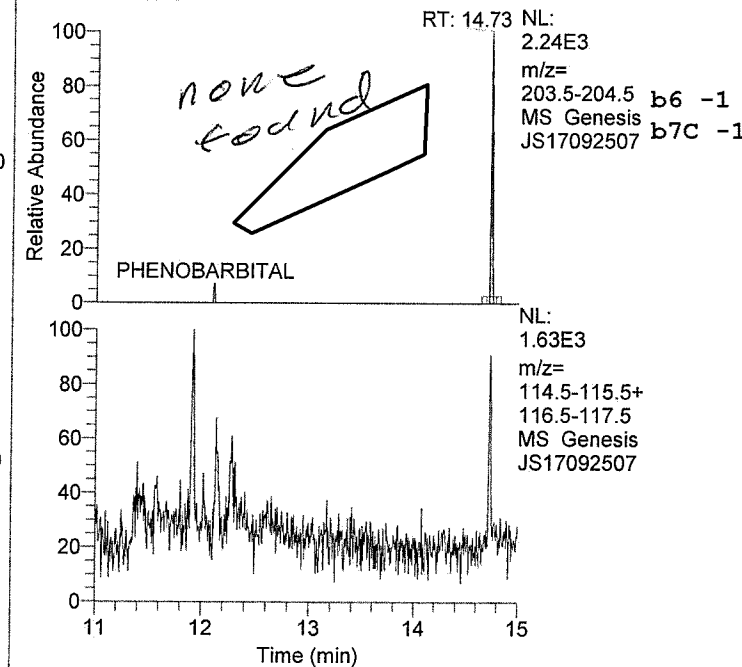
RT: 8.00 - 14.00



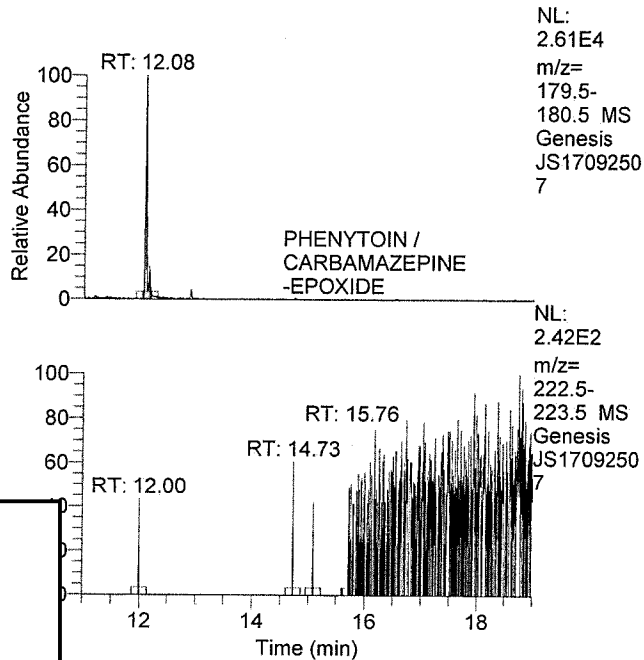
RT: 9.00 - 13.00



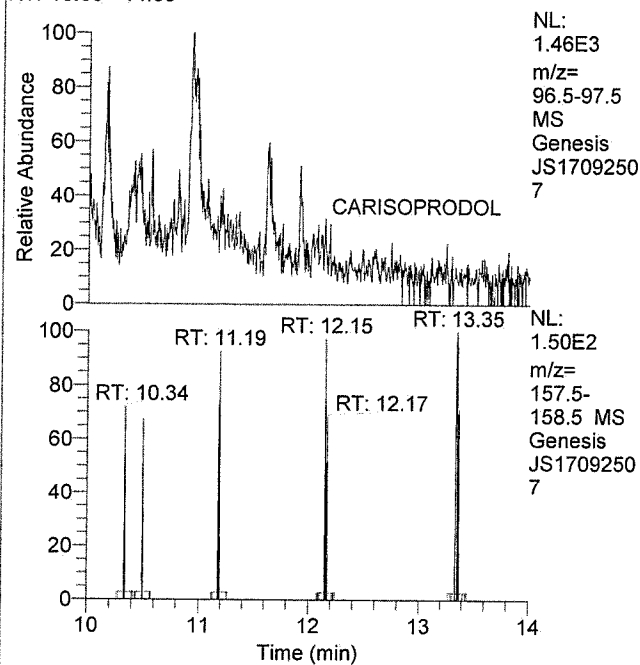
RT: 11.00 - 15.00



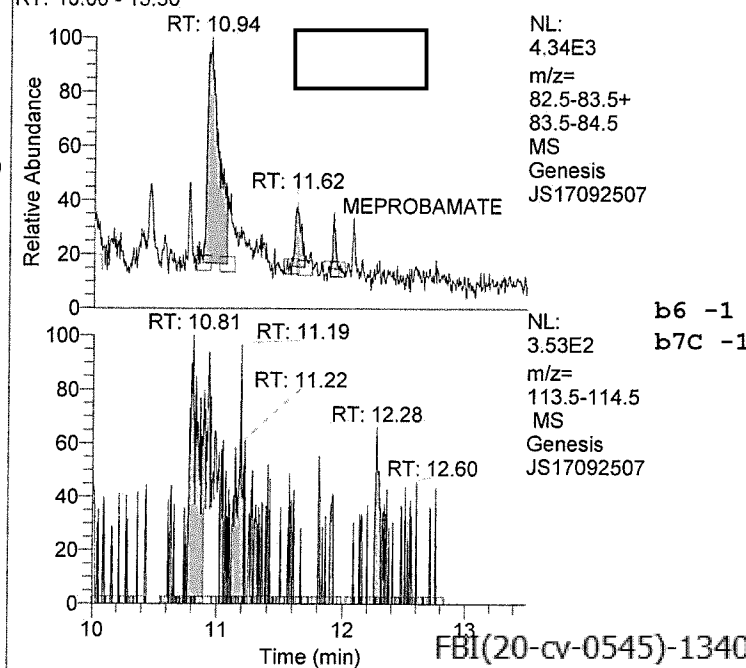
RT: 11.00 - 19.00



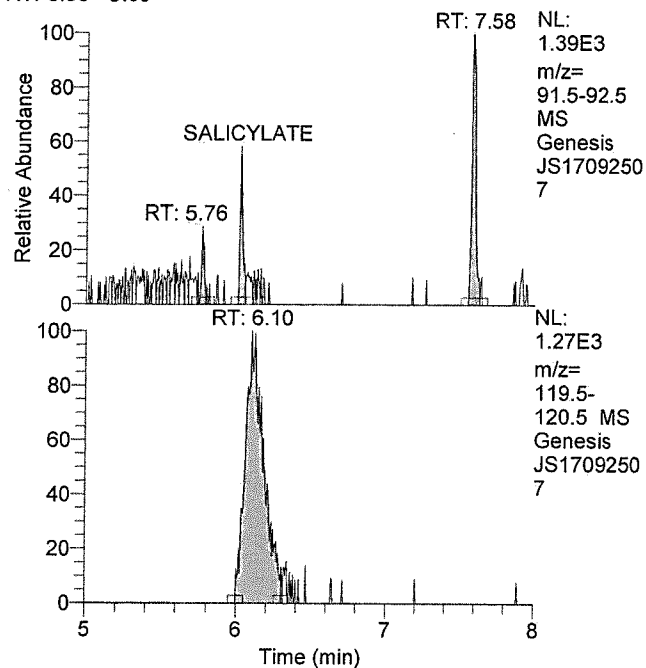
RT: 10.00 - 14.00



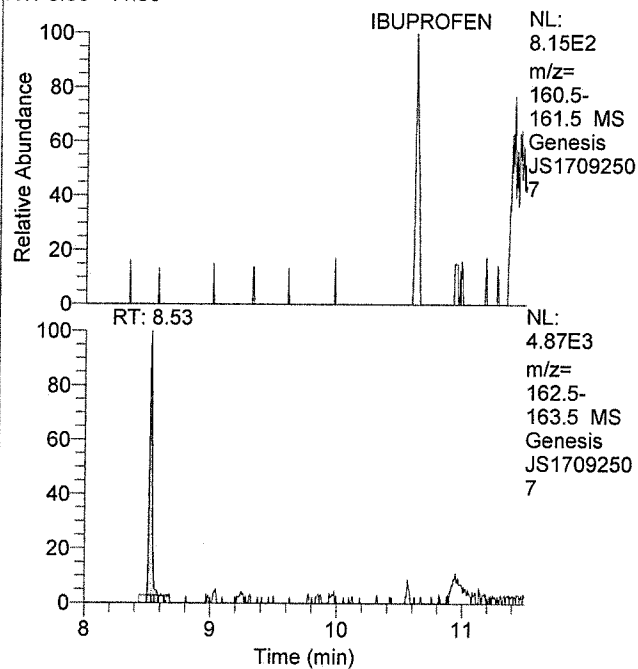
RT: 10.00 - 13.50



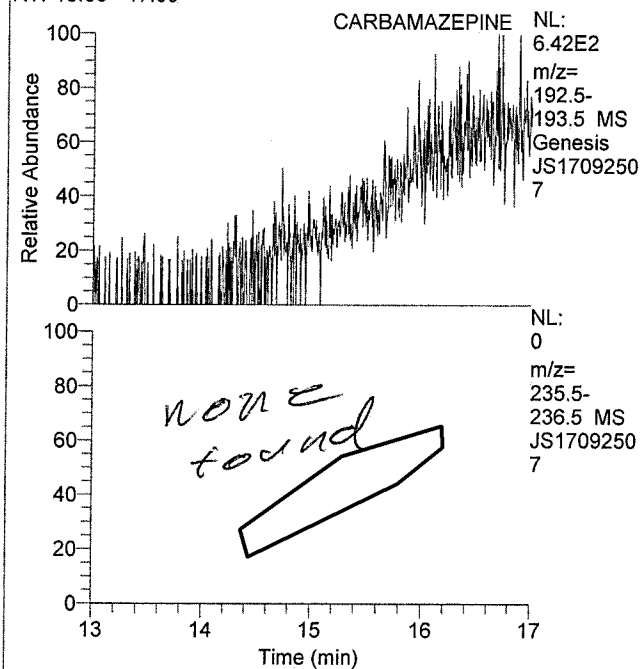
RT: 5.00 - 8.00



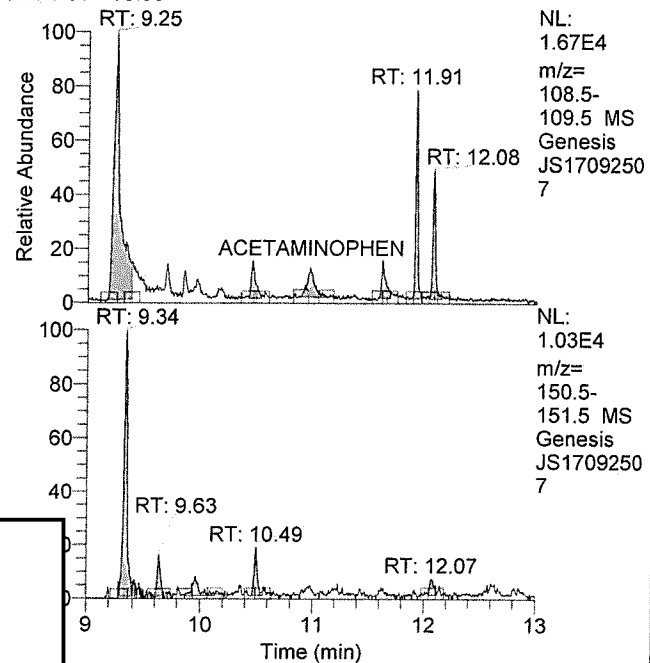
RT: 8.00 - 11.50



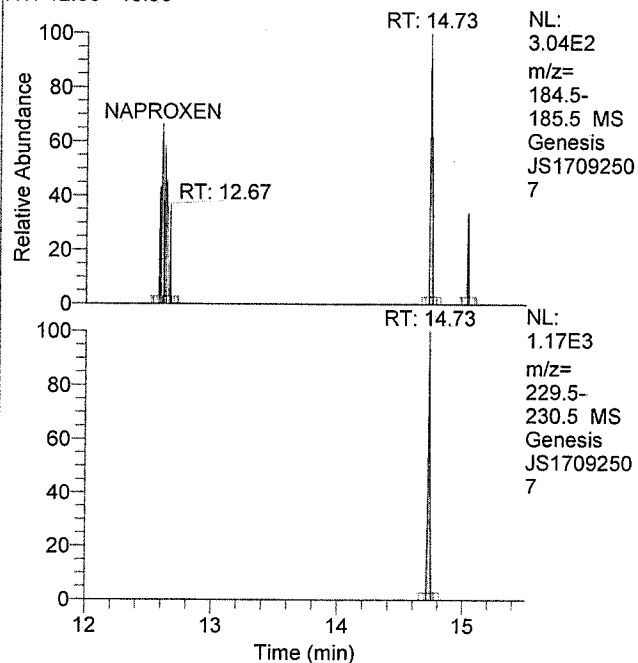
RT: 13.00 - 17.00



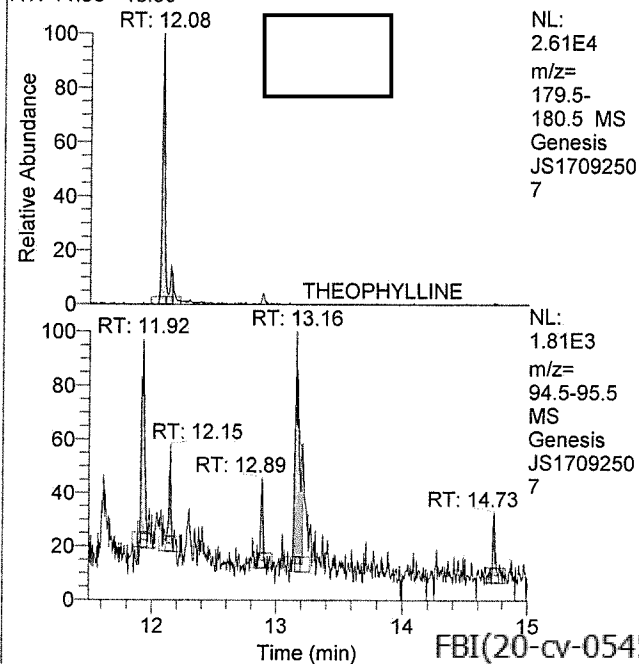
RT: 9.00 - 13.00



RT: 12.00 - 15.50



RT: 11.50 - 15.00



**BATCH NOTES**

Dates(s): 09/25 – 09/26/2017

Page 1 of 2

b6 -1  
b7C -1**Acid-Neutral Drug Screen (SOP 201-5)****Sample Accession:**

Pipets:

ID	Type	Calibration Due
CU-58	Socorex 100-1000 µl	02/2018
CU-74	Socorex 20-200 µl	02/2018

Controls:

1. Four 0.5 ml portions of drug-free human whole blood (Cliniqa lot XR5788, expires 07/2018).
2. 0.5 ml drug-free blood spiked with 100 µl of acid-neutral drug control solution (lot ANPOS170816, expires 08/2019) and 25 µl of a 1 mg/ml methanolic standard of acetaminophen (Cerilliant lot FN07161504, expires 08/2020).
3. 0.5 ml “Surine” synthetic urine (Dynatek lot 72112, expires 01/2018).
4. 0.5 ml Surine spiked with 100 µl of acid-neutral drug control solution (lot ANPOS170816, expires 08/2019) and 25 µl of a 1 mg/ml methanolic standard of acetaminophen (Cerilliant lot FN07161504, expires 08/2020).

Case Specimens:

Lab #	Item	Matrix	Amount Used	Notes
PT17-18A	FTC-05	Blood	0.5 ml	Plastic bottle
PT17-18A	FTC-06	Blood	0.5 ml	Plastic bottle
PT17-18A	FTC-07	Blood	0.5 ml	Plastic bottle
PT17-18A	FTC-08	Urine	0.5 ml	Plastic bottle
2017-00469	Item 2	Urine	0.5 ml	1 conical plastic tube
2017-02439#1	Item 1	Blood	0.5 ml	2 grey-top tubes – tube A used
2017-02440#1	Item 1	Vitreous Humour	0.25 ml	2 grey-top tubes – tube A used – dilute with 0.25 ml DI water
2017-02441#1	Item 1	Blood	0.5 ml	1 grey-top tube
2017-02632#1	Item 1	Blood	0.5 ml	1 grey-top tube
2017-02633#1	Item 1	Blood	0.5 ml	1 grey-top tube NOTE: specimen was very thick and viscous

b6 -1  
b7C -1

2017-00469 1027-2017

FBI

**BATCH NOTES**

Dates(s): 09/25 – 09/26/2017

Page 2 of 2

b6 -1  
b7C -1**Acid-Neutral Drug Screen (SOP 201-5)****Processing:**

Each sample was brought to 1 ml with DI water and spiked with 25 µl of 30 ppm methylphenylhydantoin. All were processed and extracted per Toxicology SOP 201-5. The dried extracts were each reconstituted in 50 µl of 4:1 chloroform:methanol and analyzed by GC-MS-PIEI as detailed below.

**Analysis:**

Instrument	Method	Data Files	Notes
CU-MSD-4	AN_DRUG_SOP	<div></div>	2 µl injections

b6 -1  
b7C -1  
b7E -9

Each negative control (1 urine, 4 blood) was analyzed twice, a dichloromethane blank was analyzed twice, and methanol blanks were analyzed 12 times.

**Additional Standards:**

20 µl of a 100 ppm methanolic standard of amitriptyline (lot  expires 12/2017) was diluted with 180 µl of 4:1 chloroform:methanol to create a ca. 10 ppm injection standard. This standard, a dichloromethane blank and a methanol blank were analyzed as described above.

Data Files: b6 -1  
b7C -1  
b7E -9

NOTE – This data is included only with cases(s) to which it applies.

b6 -1  
b7C -1



**DIRECT SOLVENT EXTRACTION OF ACID/NEUTRAL  
DRUGS FROM BIOLOGICAL FLUIDS**  
CHEMISTRY UNIT TOXICOLOGY SOP 201-5

(10/01/14)

CHEMIST:   
DATE: 9/25/2017

b6 -1  
b7C -1

PROCEDURE:

<input checked="" type="checkbox"/>	Label 16x125 mm screw-top test tubes accordingly.	
<input checked="" type="checkbox"/>	Aliquot negative control(s).	Lot(s): <span style="border: 1px solid black; display: inline-block; width: 100px; height: 1.2em; vertical-align: middle;"></span>
<input checked="" type="checkbox"/>	Aliquot positive control(s).	Lot(s): <u>see notes</u> <span style="border: 1px solid black; display: inline-block; width: 100px; height: 1.2em; vertical-align: middle;"></span>
<input checked="" type="checkbox"/>	Add 0.5 mL biological fluid (0.5 g food homogenate, 0.5 mL beverage dilution or 1 g tissue homogenate) to test tube. Bring up to 1 mL total volume with deionized water.	
<input checked="" type="checkbox"/>	Add 25 uL of MPH Int. Std. sol'n (500 uL for tissue samples) to each test tube. Yields spike conc. of 1.5 ug/mL (10 ug/g). <i>Methylphenylhydantoin Working solution (30 ug/mL)</i>	Lot: <u>ANTSTD160505</u> Exp: <u>05/2018</u> Actual amount added: <u>25</u> <span style="border: 1px solid black; display: inline-block; width: 50px; height: 1.2em; vertical-align: middle;"></span>
<input checked="" type="checkbox"/>	Add 1 mL of 5% KH <sub>2</sub> PO <sub>4</sub> buffer to each test tube. Check pH. It should fall between 4 and 6.	Lot: <span style="border: 1px solid black; display: inline-block; width: 100px; height: 1.2em; vertical-align: middle;"></span> Exp: <u>10/2017</u>
<input checked="" type="checkbox"/>	Add 5 mL ether:toluene (1:1) to each tube. Extract 20 minutes. Centrifuge 5 minutes.	Lot: <span style="border: 1px solid black; display: inline-block; width: 100px; height: 1.2em; vertical-align: middle;"></span> Exp: <u>10/2017</u>
<input checked="" type="checkbox"/>	Transfer organic (top) layer to 16x100 mm test tube. Evaporate to dryness under nitrogen @ 50°C. <i>If volatile analysis is required (ethchlorvynol or valproic acid) stop evaporating at ~0.5 mL and analyze by GC/MS.</i>	
<input checked="" type="checkbox"/>	Transfer dried residue to a 10 cc centrifuge tube with two successive 1 mL washes of CHCl <sub>3</sub> :MeOH (4:1).	Lot: <span style="border: 1px solid black; display: inline-block; width: 100px; height: 1.2em; vertical-align: middle;"></span> Exp: <u>10/22/17</u>
<input checked="" type="checkbox"/>	Evaporate to dryness under nitrogen at 50°C.	
<input checked="" type="checkbox"/>	Reconstitute dried residue in 2 mL hexane.	Lot: <u>EMD 54009</u>
<input checked="" type="checkbox"/>	Add 200 uL 80% ethanol. Vortex 30 sec and centrifuge 5 min.	Lot: <span style="border: 1px solid black; display: inline-block; width: 100px; height: 1.2em; vertical-align: middle;"></span> Exp: <u>3/2018</u>
<input checked="" type="checkbox"/>	Discard hexane (top) layer. Transfer ethanol layer to a 12 x 75 mm tube and take to dryness with nitrogen at 50°C.	
<input checked="" type="checkbox"/>	Reconstitute residue in 25-50 uL CHCl <sub>3</sub> :MeOH (4:1).	Actual Recon. Volume: <u>50</u> <span style="border: 1px solid black; display: inline-block; width: 50px; height: 1.2em; vertical-align: middle;"></span>
<input checked="" type="checkbox"/>	Analyze by GC/MS (EI). To reduce carryover, add a methylene chloride blank at the beginning of the run and after the postive control.	

b6 -1  
b7C -1

b6 -1  
b7C -1  
b7E -9

b6 -1  
b7C -1  
b7E -9

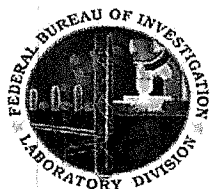
b6 -1  
b7C -1

Additional Notes / Deviations

b6 -1  
b7C -1



(10/01/14)



*Direct Solvent Extraction of Acid/Neutral Drugs from Biological Fluids*  
 CHEMISTRY UNIT TOXICOLOGY SOP 201-4  
 INSTRUMENTAL METHOD PARAMETERS

CHEMIST: DATE: 9/25/2017 - 9/26/2017b6 -1  
b7C -1

GC/MS Instrument Name: <u>CV-MSD-4</u>		Method File Name: <u>AN-DRUG-SOP</u>	
GC Oven Program:	<input checked="" type="checkbox"/> start at 45°C, hold 1 min	<input checked="" type="checkbox"/> ramp 25°C/min to 150°C	<input checked="" type="checkbox"/> hold 2 min
	<input checked="" type="checkbox"/> ramp 15°C/min to 280°C	<input checked="" type="checkbox"/> hold 14 min	
GC Inlet:	<input checked="" type="checkbox"/> Temp = 220°C.	<input checked="" type="checkbox"/> Mode = split	<input checked="" type="checkbox"/> Split Ratio = 10:1
	<input checked="" type="checkbox"/> Injection Volume = 1-2 µL	Actual Injection Volume <u>2</u>	
GC Carrier Gas:	<input checked="" type="checkbox"/> Mode = constant flow	<input checked="" type="checkbox"/> Flow = 1.2 mL/min	
Thermal Zones:	<input checked="" type="checkbox"/> Transfer Line = 280°C	<input checked="" type="checkbox"/> Source = 230°C	<input checked="" type="checkbox"/> Quad = 150°C
Mass Spectrometer:	<input checked="" type="checkbox"/> Source = EI, positive ion	<input checked="" type="checkbox"/> Mode = full scan	<input checked="" type="checkbox"/> Range = 35-500 m/z
	<input checked="" type="checkbox"/> Solvent Delay = 3 min		

b6 -1  
b7C -1

☐ ALTERNATE CONDITIONS FOR ANALYSIS OF VOLATILE COMPONENTS

GC/MS Instrument Name:		Method File Name:	
GC Oven Program:	<input type="checkbox"/> start at 45°C, hold 1 min	<input type="checkbox"/> ramp 25°C/min to 150°C	<input type="checkbox"/> hold 2 min
	<input type="checkbox"/> ramp 30°C/min to 280°C	<input type="checkbox"/> hold 14 min	
GC Inlet:	<input type="checkbox"/> Temp = 220°C.	<input type="checkbox"/> Mode = split	<input type="checkbox"/> Split Ratio = 10:1
	<input type="checkbox"/> Injection Volume = 1-2 µL	Actual Injection Vol	
GC Carrier Gas:	<input type="checkbox"/> Mode = constant flow	<input type="checkbox"/> Flow = 1.2 mL/min	
Thermal Zones:	<input type="checkbox"/> Transfer Line = 280°C	<input type="checkbox"/> Source = 230°C	<input type="checkbox"/> Quad = 150°C
Mass Spectrometer:	<input type="checkbox"/> Source = EI, positive ion	<input type="checkbox"/> Mode = full scan	<input type="checkbox"/> Range = 35-200 m/z
	<input type="checkbox"/> Solvent Delay = 3.5 min		

b6 -1  
b7C -1

☐ ALTERNATE CONDITIONS FOR CHEMICAL IONIZATION MS (TSQ)

GC/MS Instrument Name:		Method File Name:	
GC Oven Program:	<input type="checkbox"/> start at 45°C, hold 1 min	<input type="checkbox"/> ramp 25°C/min to 150°C	<input type="checkbox"/> hold 2 min
	<input type="checkbox"/> ramp 15°C/min to 280°C	<input type="checkbox"/> hold 14 min	
GC Inlet:	<input type="checkbox"/> Temp = 220°C.	<input type="checkbox"/> Mode = splitless	<input type="checkbox"/> Splitless Time = 1 min
	<input type="checkbox"/> Injection Volume = 1 µL		
GC Carrier Gas:	<input type="checkbox"/> Mode = constant flow	<input type="checkbox"/> Flow = 1.2 mL/min	
Thermal Zones:	<input type="checkbox"/> Transfer Line = 280°C	<input type="checkbox"/> Source = 185°C	<input type="checkbox"/>
Mass Spectrometer:	<input type="checkbox"/> Source = CI, positive ion	<input type="checkbox"/> CI Gas = methane	<input type="checkbox"/> CI Gas Flow = 2.0 mL/min
	<input type="checkbox"/> Mode = full scan	<input type="checkbox"/> Range = 100-500 m/z	<input type="checkbox"/> Solvent Delay = 4 min

b6 -1  
b7C -1

NOTES &amp; DEVIATIONS:

b6 -1  
b7C -1

2017-00469 1027-2017

FBI

Sequence Name: [redacted]  
Comment: Acid-Neutral Drug Screen  
Operator: [redacted]  
Data Path: [redacted]

b6 -1  
b7C -1  
b7E -2

Instrument Control Pre-Seq Cmd:  
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:  
Data Analysis Post-Seq Cmd:

Method Sections To Run On A Barcode Mismatch  
(X) Full Method (X) Inject Anyway  
( ) Reprocessing Only ( ) Don't Inject

Line	Sample Name/Misc Info
1) Sample	1 dichloromethane blank
Datafile	[redacted]
Method	AN_DRUG_SOP
2) Sample	2 methanol blank
Datafile	[redacted]
Method	AN_DRUG_SOP
3) Sample	5 negative urine control
Datafile	[redacted]
Method	AN_DRUG_SOP
4) Sample	6 CAP 2017 FTC-08 urine
Datafile	[redacted]
Method	AN_DRUG_SOP
5) Sample	2 methanol blank
Datafile	[redacted]
Method	AN_DRUG_SOP
6) Sample	5 negative urine control
Datafile	[redacted]
Method	AN_DRUG_SOP
7) Sample	7 2017-00469 Item 2 Urine
Datafile	[redacted]
Method	AN_DRUG_SOP
8) Sample	2 methanol blank
Datafile	[redacted]
Method	AN_DRUG_SOP
9) Sample	8 positive urine control
Datafile	[redacted]
Method	AN_DRUG_SOP
10) Sample	1 dichloromethane blank
Datafile	[redacted]
Method	AN_DRUG_SOP
11) Sample	2 methanol blank
Datafile	[redacted]
Method	AN_DRUG_SOP
12) Sample	9 negative blood control
Datafile	[redacted]
Method	AN_DRUG_SOP
13) Sample	10 CAP 2017 FTC-05 blood
Datafile	[redacted]
Method	AN_DRUG_SOP
14) Sample	3 methanol blank
Datafile	[redacted]
Method	AN_DRUG_SOP
15) Sample	9 negative blood control
Datafile	[redacted]
Method	AN_DRUG_SOP
16) Sample	11 CAP 2017 FTC-06 blood
Datafile	[redacted]
Method	AN_DRUG_SOP
17) Sample	3 methanol blank
Datafile	[redacted]
Method	AN_DRUG_SOP
18) Sample	12 negative blood control
Datafile	[redacted]
Method	AN_DRUG_SOP
19) Sample	13 CAP 2017 FTC-07 blood
Datafile	[redacted]
Method	AN_DRUG_SOP

Sequence verified  
Vial order confirmed  
9/26/2017


b6 -1  
b7C -1  
b7E -9



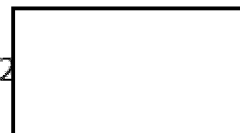
20) Sample	3	methanol blank
Datafile		[REDACTED]
Method		AN_DRUG_SOP
21) Sample	12	negative blood control
Datafile		[REDACTED]
Method		AN_DRUG_SOP
22) Sample	14	2017-02439 Item 1 Blood
Datafile		[REDACTED]
Method		AN_DRUG_SOP
23) Sample	3	methanol blank
Datafile		[REDACTED]
Method		AN_DRUG_SOP
24) Sample	15	negative blood control
Datafile		[REDACTED]
Method		AN_DRUG_SOP
25) Sample	16	2017-02440 Item 1 Vitreous
Datafile		[REDACTED]
Method		AN_DRUG_SOP
26) Sample	4	methanol blank
Datafile		[REDACTED]
Method		AN_DRUG_SOP
27) Sample	15	negative blood control
Datafile		[REDACTED]
Method		AN_DRUG_SOP
28) Sample	17	2017-02441 Item 1 Blood
Datafile		[REDACTED]
Method		AN_DRUG_SOP
29) Sample	4	methanol blank
Datafile		[REDACTED]
Method		AN_DRUG_SOP
30) Sample	18	negative blood control
Datafile		[REDACTED]
Method		AN_DRUG_SOP
31) Sample	19	2017-02632 Item 1 Blood
Datafile		[REDACTED]
Method		AN_DRUG_SOP
32) Sample	4	methanol blank
Datafile		[REDACTED]
Method		AN_DRUG_SOP
33) Sample	18	negative blood control
Datafile		[REDACTED]
Method		AN_DRUG_SOP
34) Sample	20	2017-02633 Item 1 Blood
Datafile		[REDACTED]
Method		AN_DRUG_SOP
35) Sample	4	methanol blank
Datafile		[REDACTED]
Method		AN_DRUG_SOP
36) Sample	21	positive blood control
Datafile		[REDACTED]
Method		AN_DRUG_SOP

b6 -1  
b7C -1  
b7E -9

*sequence verified,  
vial order confirmed  
9/26/2017*



b6 -1  
b7C -1

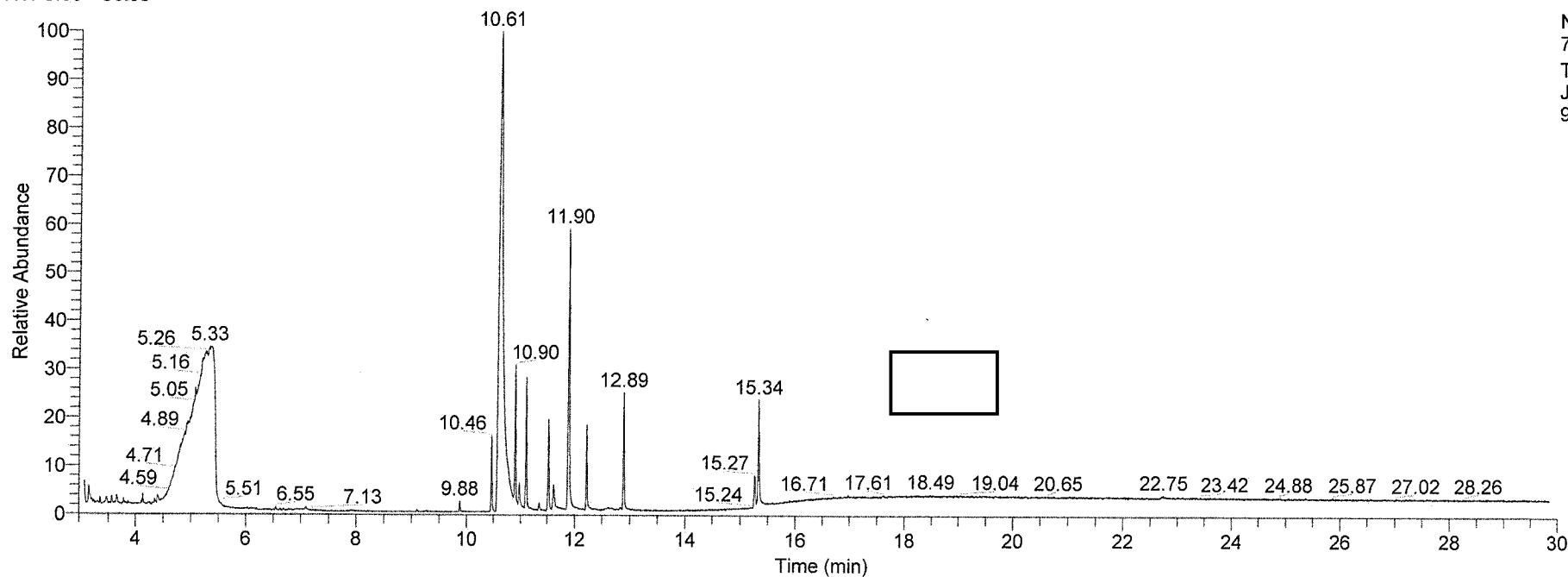


9/26/2017 7:36:24 AM

positive urine control

b7E -2

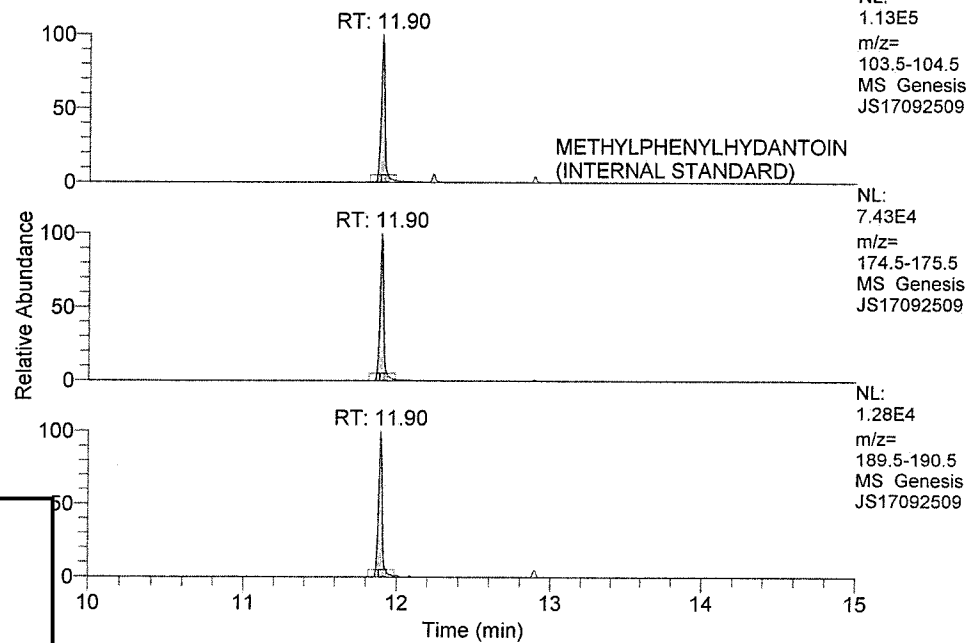
RT: 3.00 - 30.00



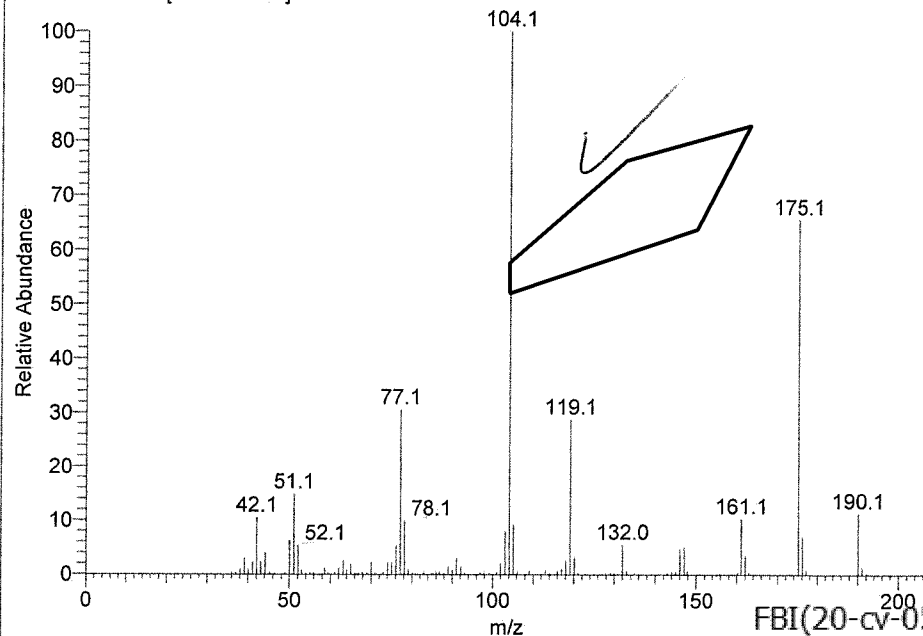
NL:  
7.63E5  
TIC MS  
JS1709250  
9

b6 -1  
b7C -1

RT: 10.00 - 15.00



JS17092509 #1647 RT: 11.90 AV: 1 NL: 1.13E5  
T: + c EI Full ms [0.00-207.00]



b6 -1  
b7C -1

FBI(20-cv-0545)-1348

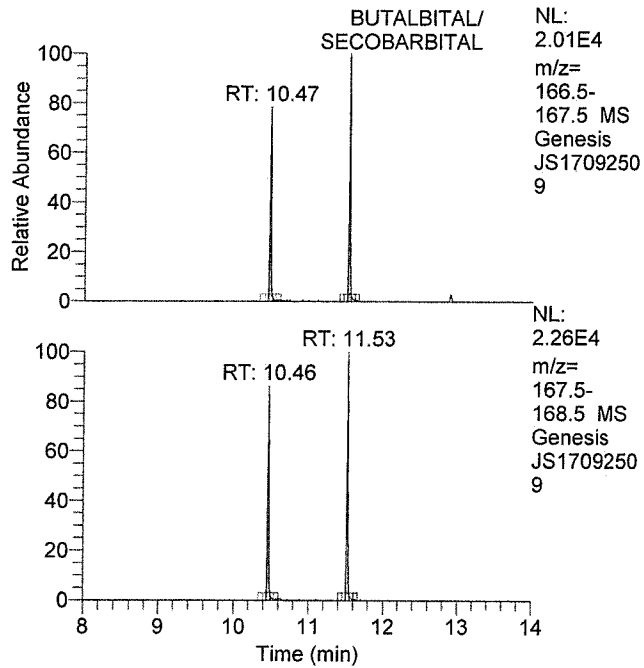
2017-00469 1027-2017

9/26/2017 7:36:24 AM

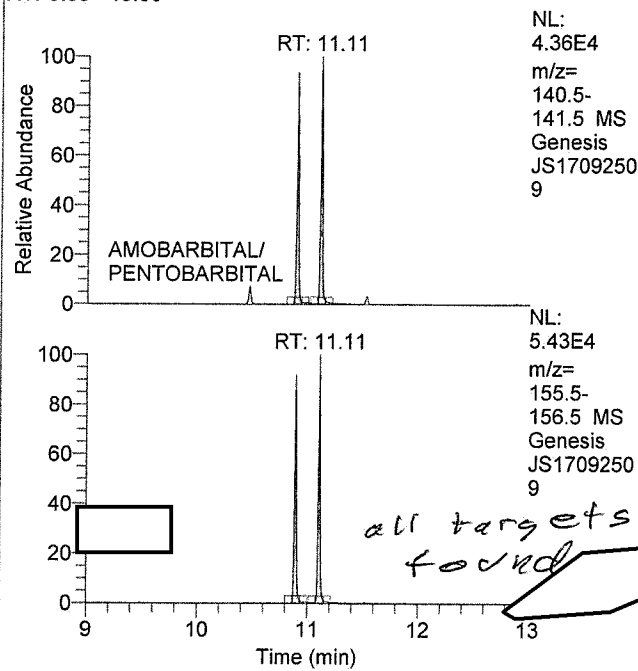
positive urine control

b7E -2

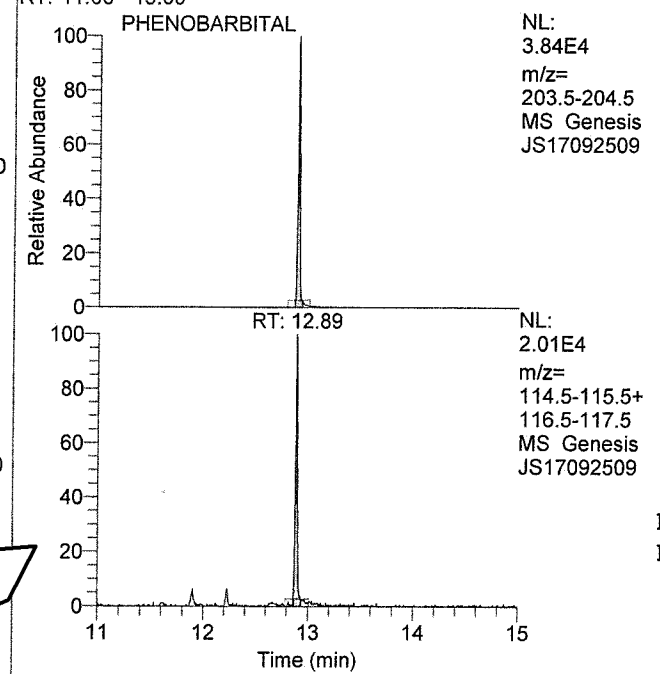
RT: 8.00 - 14.00



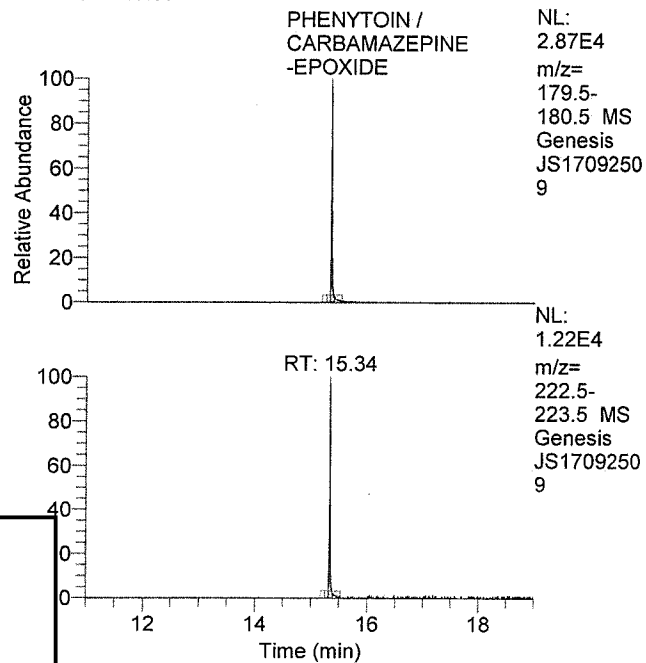
RT: 9.00 - 13.00



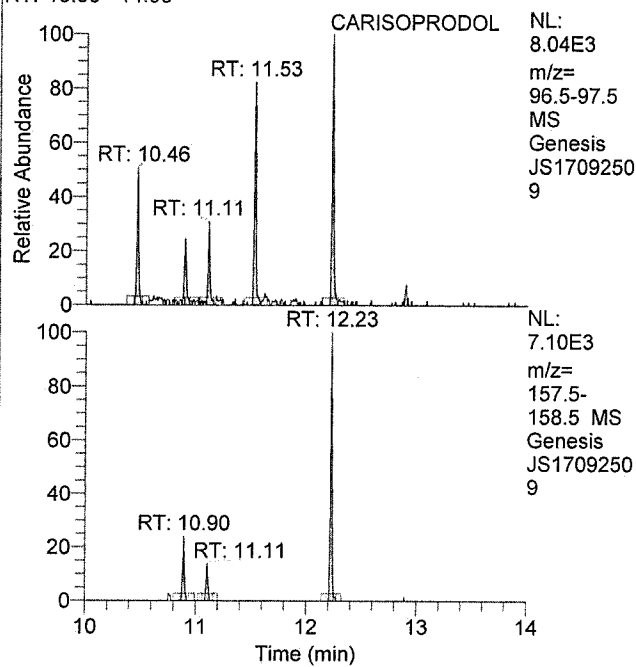
RT: 11.00 - 15.00



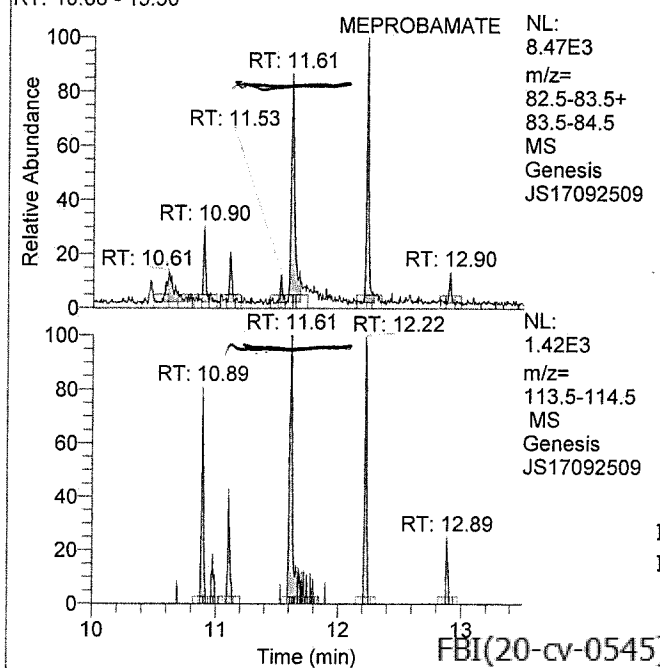
RT: 11.00 - 19.00



RT: 10.00 - 14.00



RT: 10.00 - 13.50

b6 -1  
b7C -1

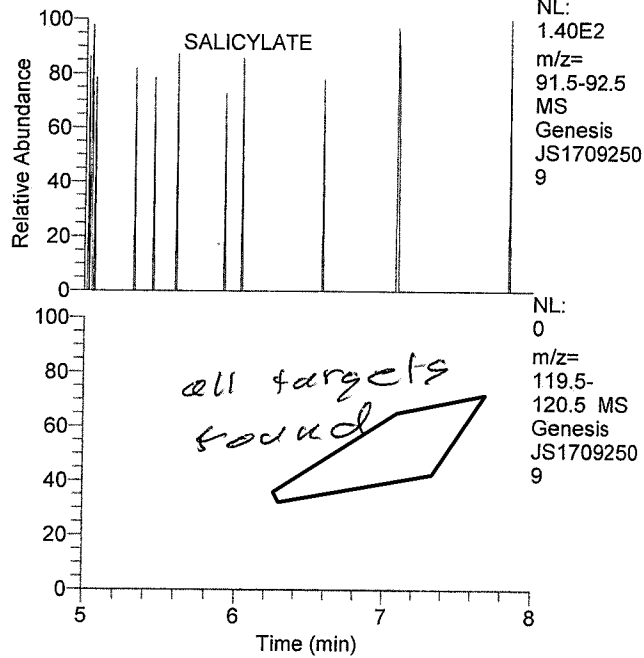
FBI(20-cv-0545)-1349

9/26/2017 7:36:24 AM

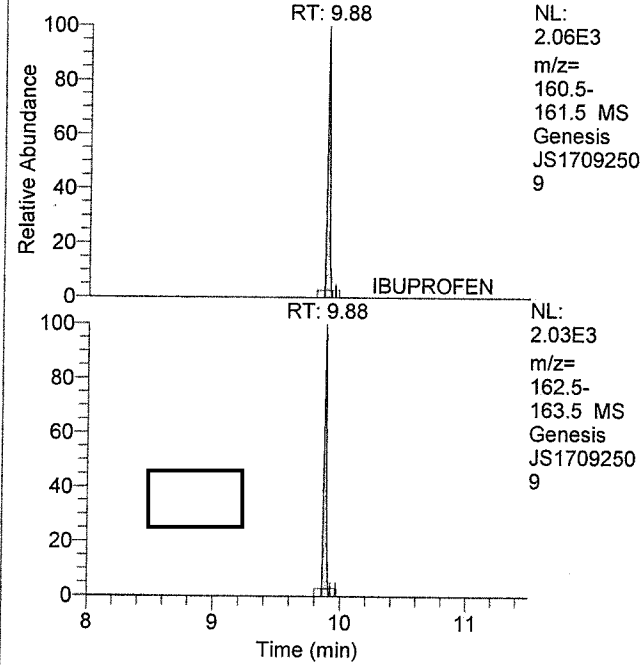
positive urine control

b7E -2

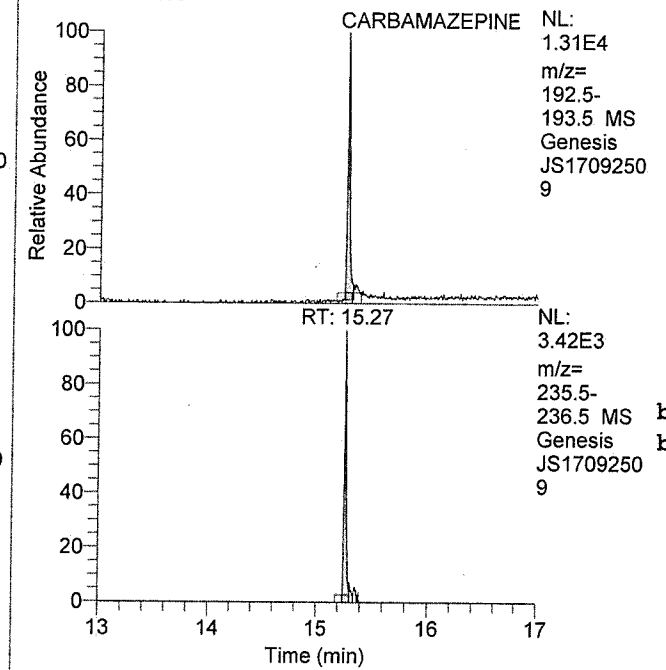
RT: 5.00 - 8.00



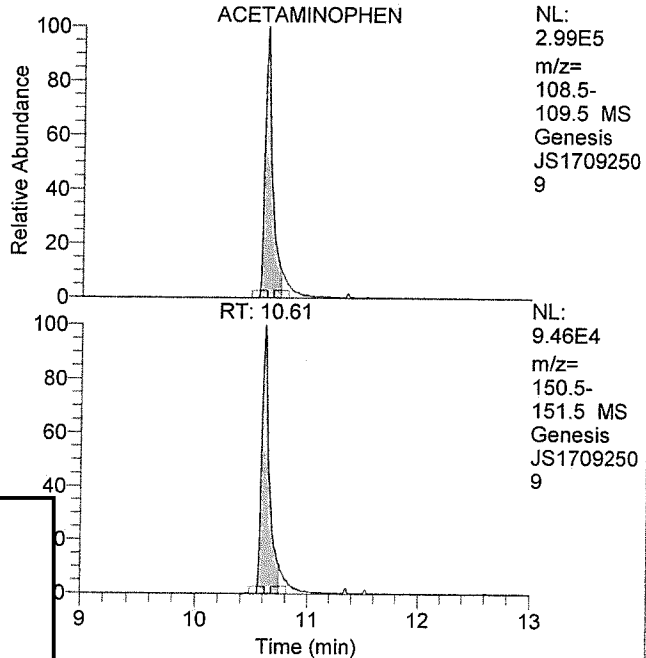
RT: 8.00 - 11.50



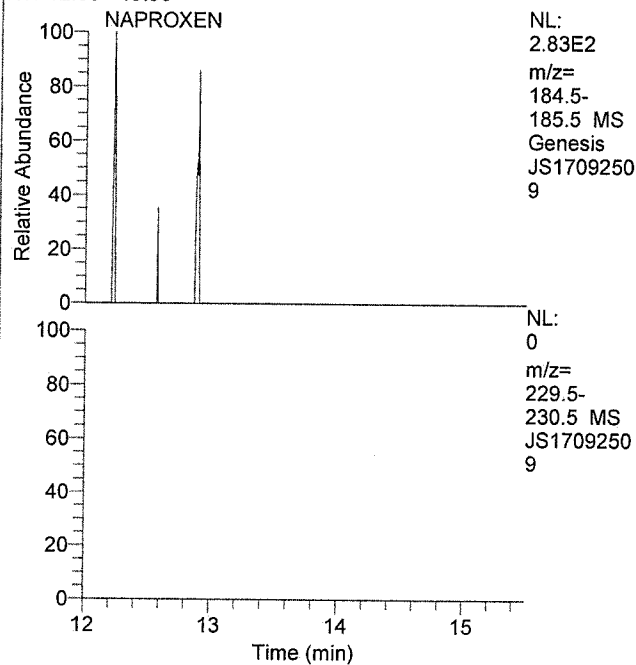
RT: 13.00 - 17.00



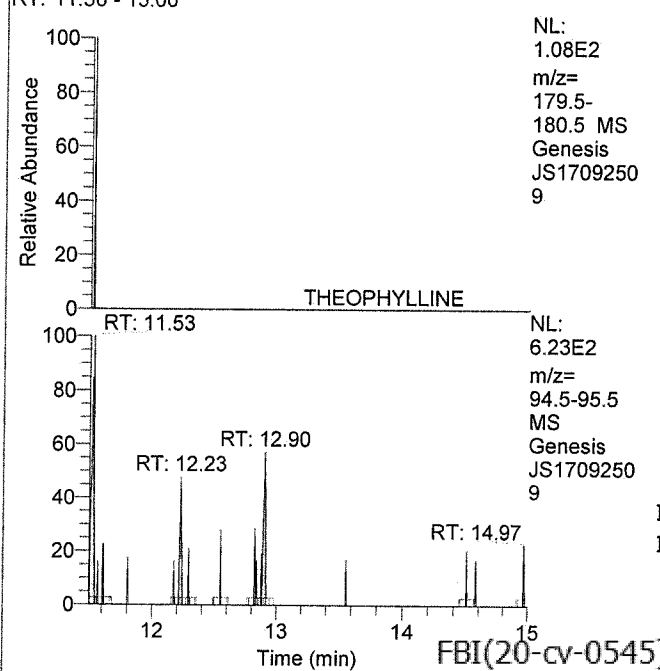
RT: 9.00 - 13.00



RT: 12.00 - 15.50



RT: 11.50 - 15.00



b6 -1  
b7C -1

FBI(20-cv-0545)-1350

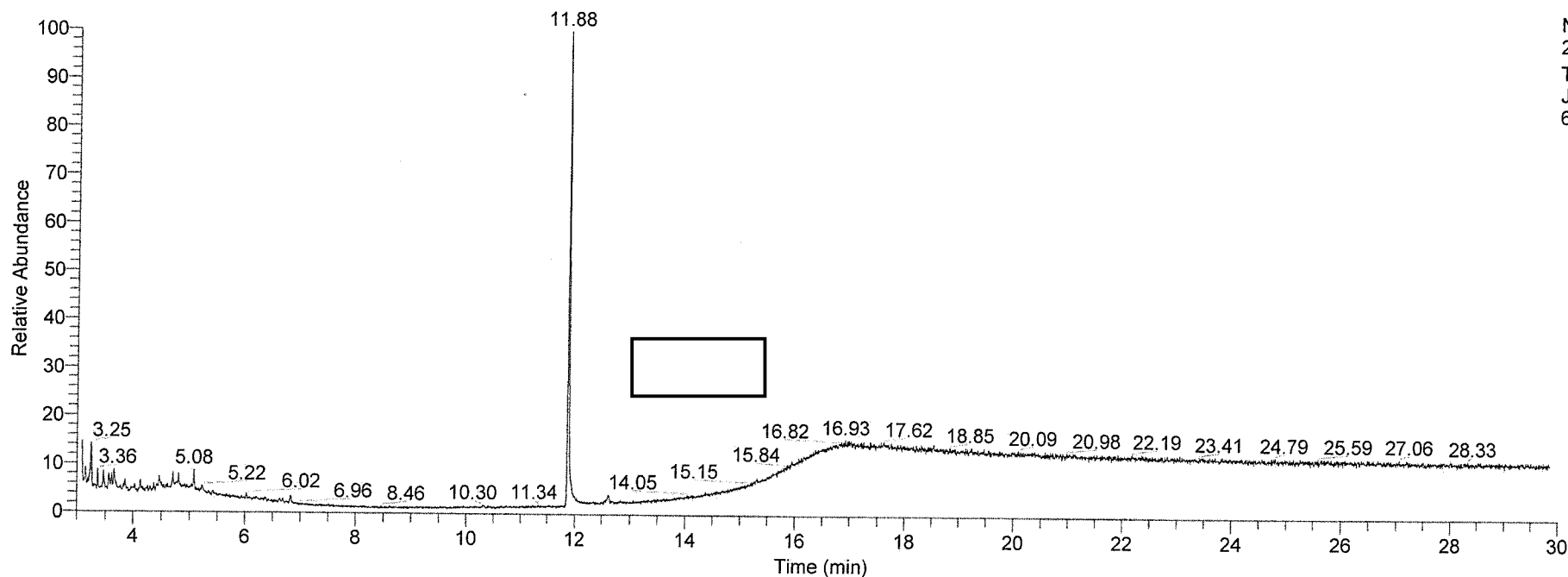
2017-00469 1027-2017

9/26/2017 7:36:16 AM

negative urine control

b7E -2

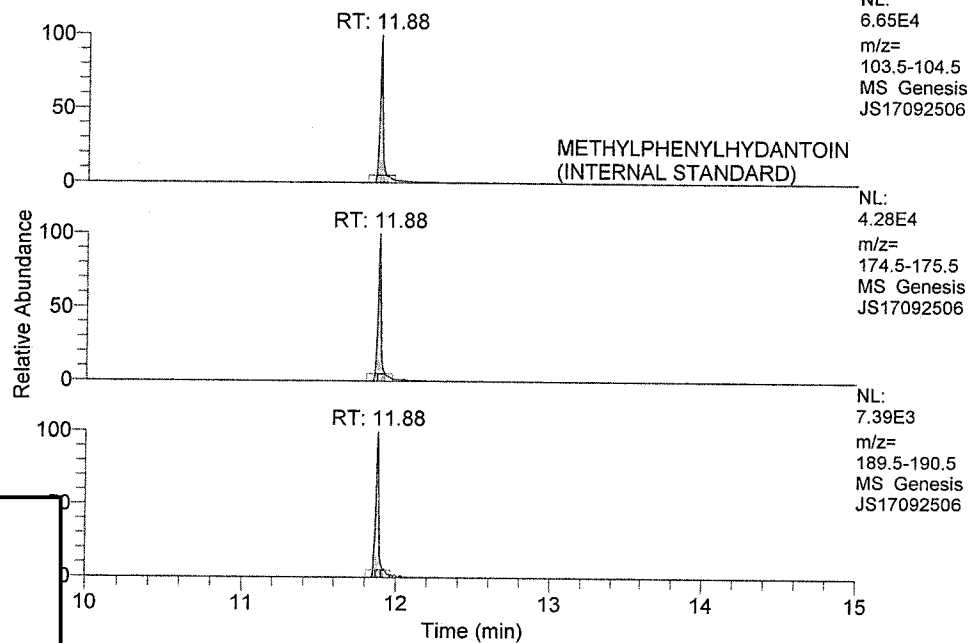
RT: 3.00 - 30.00



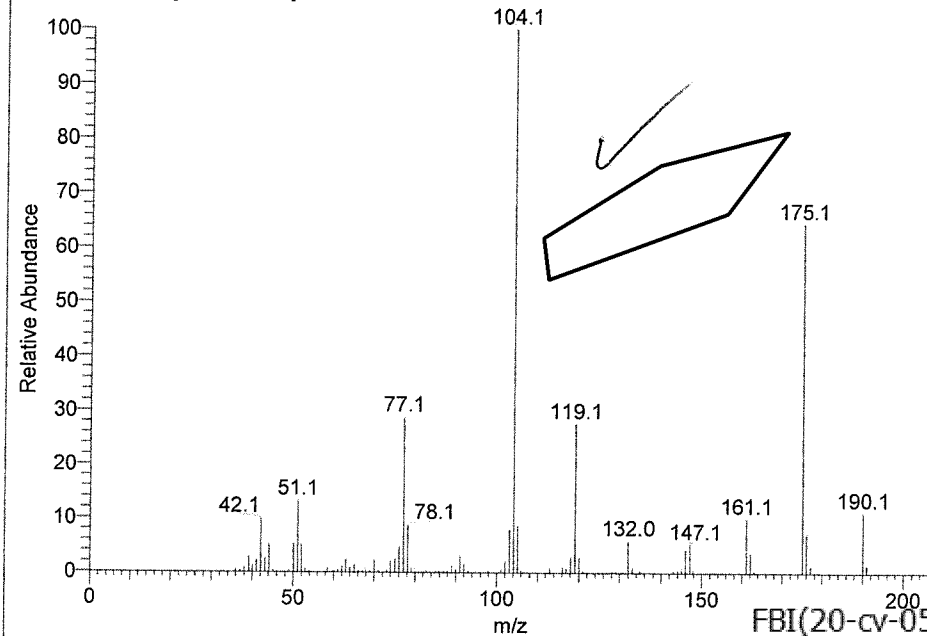
NL:  
2.58E5  
TIC MS  
JS1709250  
6

b6 -1  
b7C -1

RT: 10.00 - 15.00



JS17092506 #1644 RT: 11.88 AV: 1 NL: 6.65E4  
T: + c EI Full ms [0.00-207.00]



b6 -1  
b7C -1

FBI(20-cv-0545)-1351

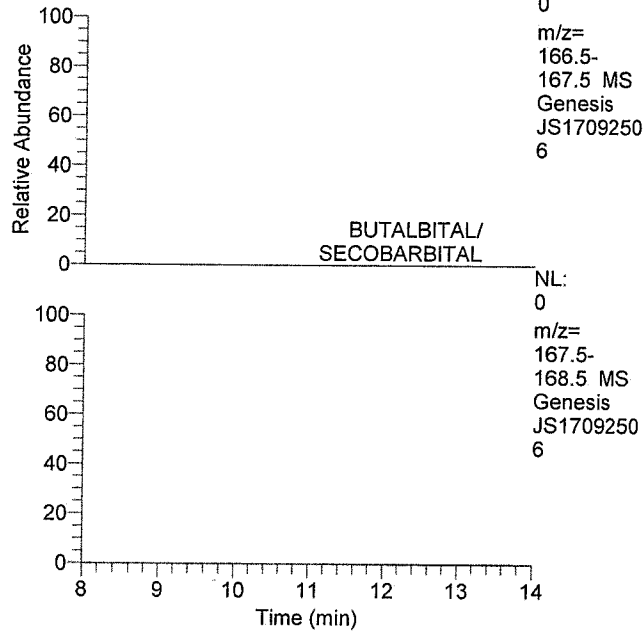
2017-00469 1027-201

9/26/2017 7:36:16 AM

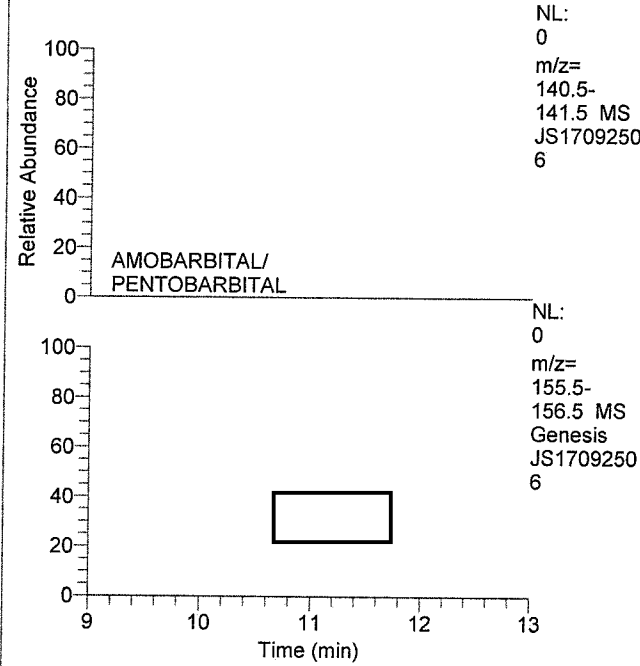
negative urine control

b7E -2

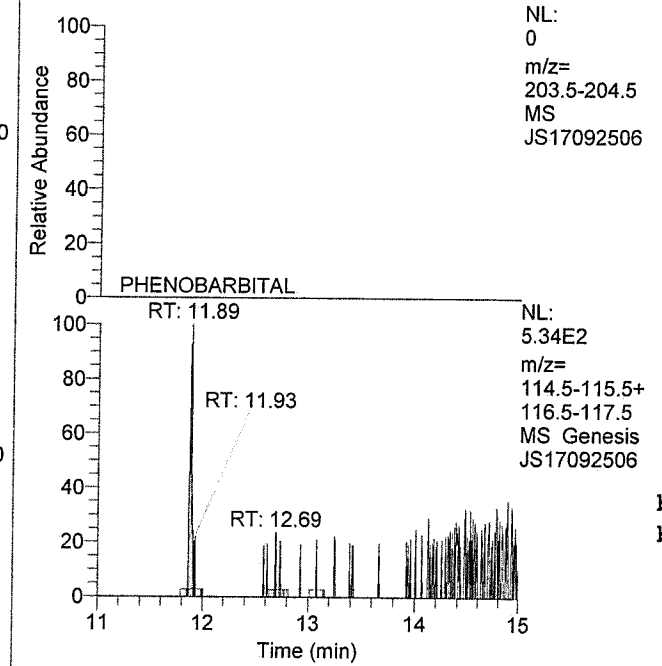
RT: 8.00 - 14.00



RT: 9.00 - 13.00

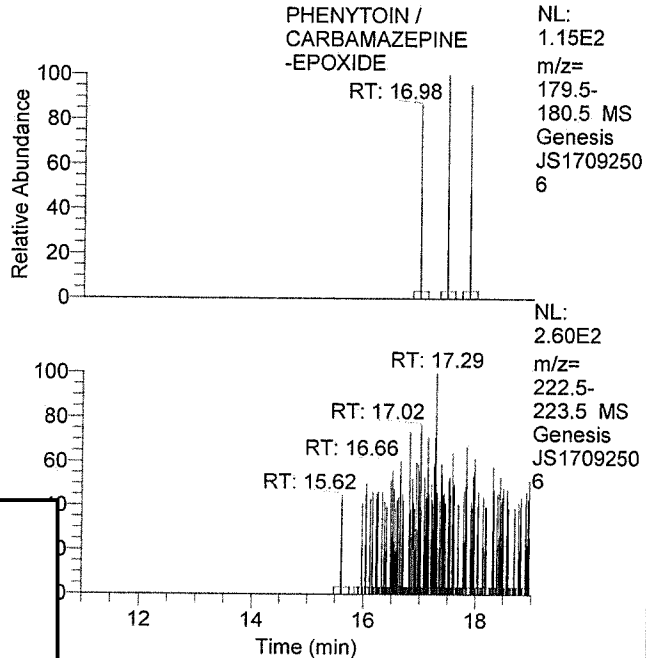


RT: 11.00 - 15.00

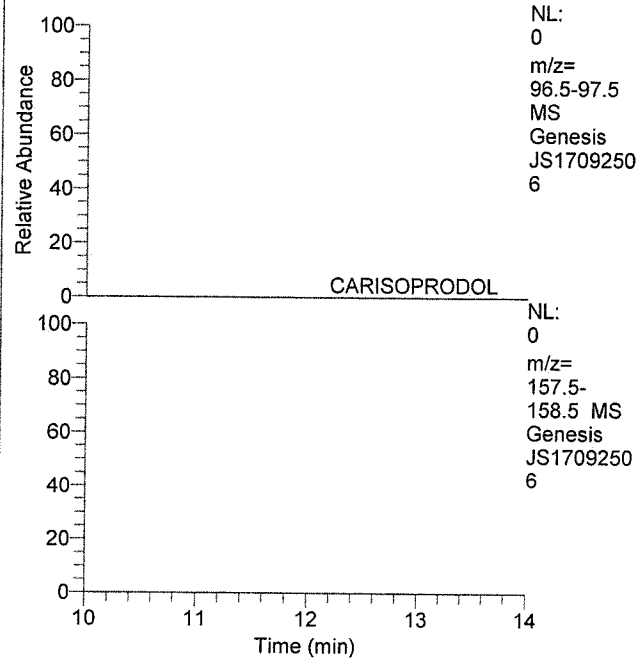


b6 -1  
b7C -1

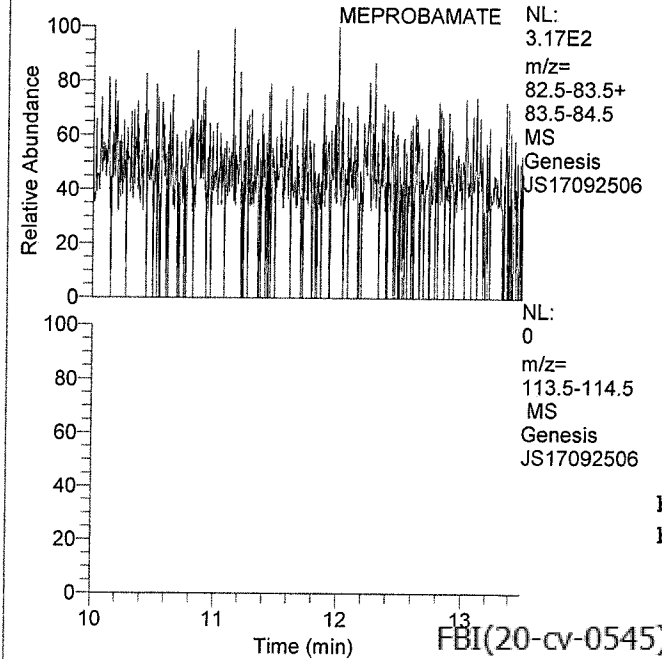
RT: 11.00 - 19.00



RT: 10.00 - 14.00



RT: 10.00 - 13.50



b6 -1  
b7C -1

FBI(20-cv-0545)-1352

2017-00469 1027-2017

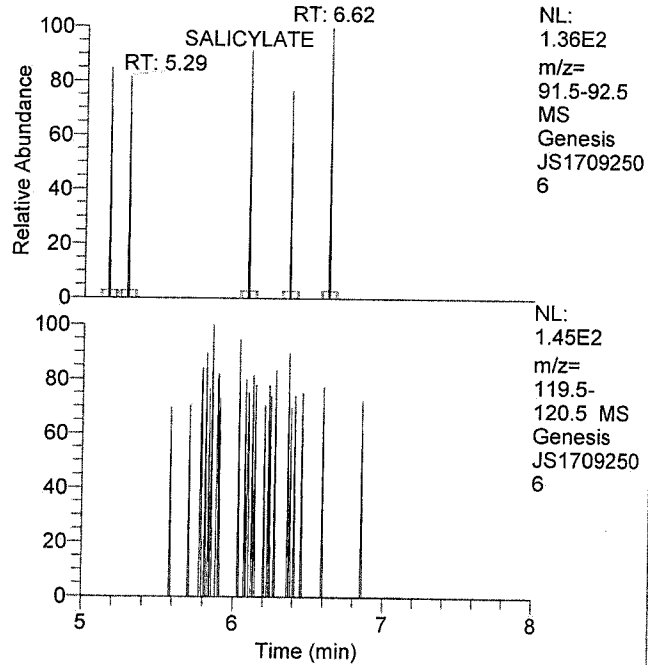


9/26/2017 7:36:16 AM

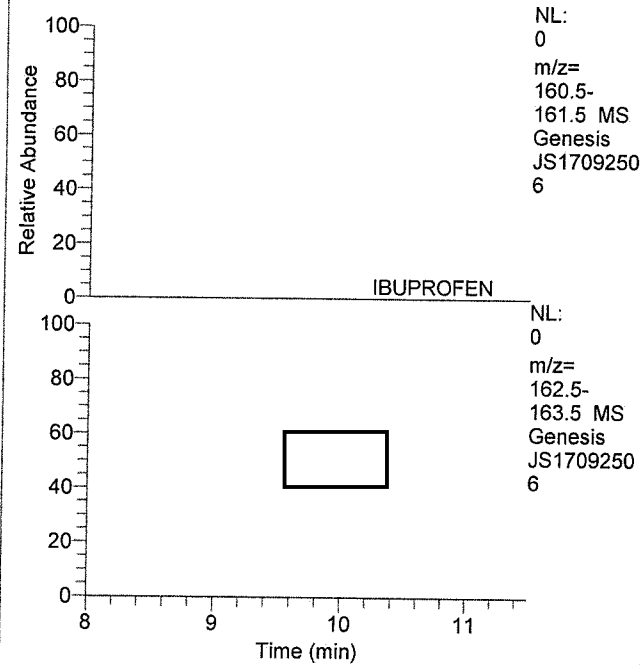
negative urine control

b7E -2

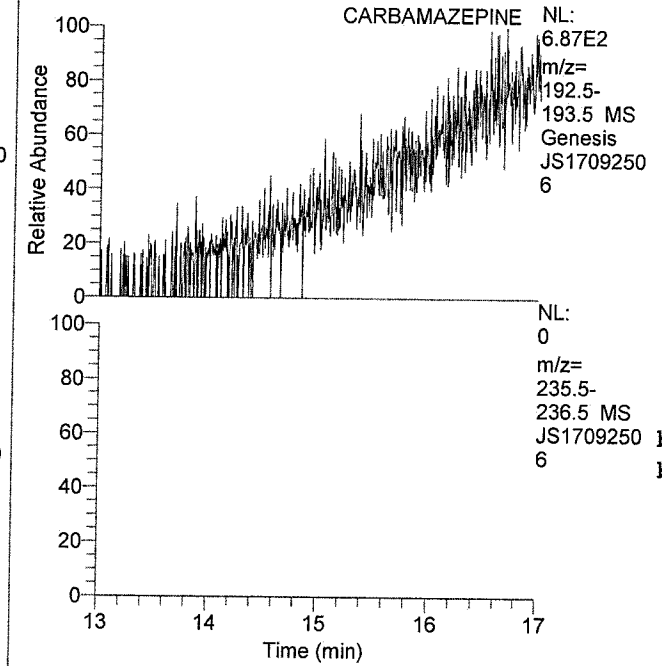
RT: 5.00 - 8.00



RT: 8.00 - 11.50

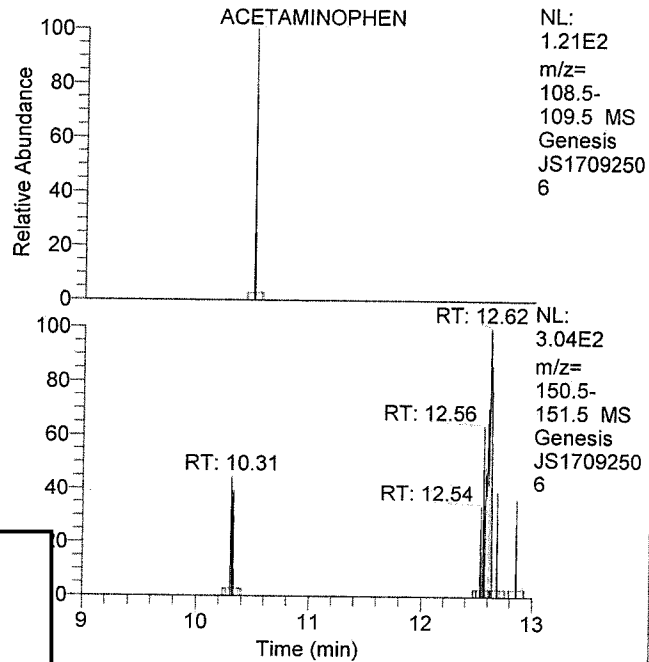


RT: 13.00 - 17.00

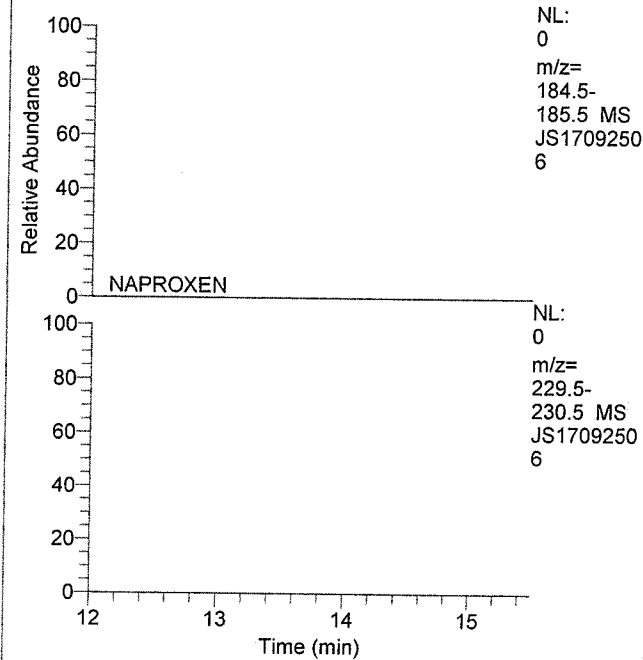


b6 -1  
b7C -1

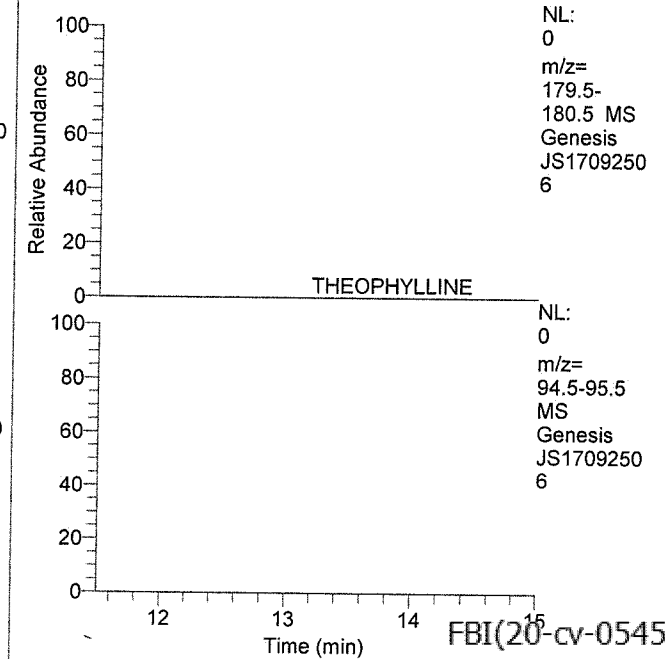
RT: 9.00 - 13.00



RT: 12.00 - 15.50



RT: 11.50 - 15.00



b6 -1  
b7C -1

FBI(20-cv-0545)-1353

2017-00469 1027-2017

# Alkaline Screen

2017-00469

Item 1, blood

Item 2, urine

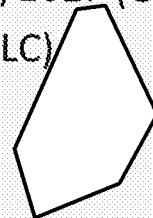
Item 3, blood

Item 5, urine

*ranitidine identified*

The sample was extracted and analyzed on 10/02/2017 (GC),  
10/03/2017 (LC), and 10/04/2017 (target LC)

b6 -1  
b7c -1



(144)

2017-00469 1027-2017

FBI(20-cv-0545)-1354

**TEMPLATES FOR LC-ESI TANDEM MASS SPECTRAL COMPARISON**

**LAB #**  
**DATE OF ANALYSIS**  
**ANALYST**

2017-00469
10/03 - 10/04/2017

b6 -1  
b7C -1

**Phenethylamine (ms3)**

Specimen		79	Diagnostic Ions (m/z)		Retention time (min)
			ion 2	ion 3	
CK160906I, 1ppm	response	23784			4.44
	ion ratio	100.0	0.0	0.0	
item 2, urine	response	379			4.42
	ion ratio	100.0	0.0	0.0	
	pass / fail	PASS	PASS	PASS	PASS

b6 -1  
b7C -1

**Phenethylamine (ms3)**

Specimen		79	Diagnostic Ions (m/z)		Retention time (min)
			ion 2	ion 3	
CK160906I, 1ppm	response	23784			4.44
	ion ratio	100.0	0.0	0.0	
item 5, urine	response	82			4.44
	ion ratio	100.0	0.0	0.0	
	pass / fail	PASS	PASS	PASS	PASS

b6 -1  
b7C -1

**ENTER CHEMICAL NAME**

Specimen		base peak	Diagnostic Ions (m/z)		Retention rel to IS
			ion 2	ion 3	
known / control	response				
	ion ratio	#DIV/0!	#DIV/0!	#DIV/0!	
unknown	response				
	ion ratio	#DIV/0!	#DIV/0!	#DIV/0!	
	pass / fail	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

**ENTER CHEMICAL NAME**

Specimen		base peak	Diagnostic Ions (m/z)		Retention time (min)
			ion 2	ion 3	
known / control	response				
	ion ratio	#DIV/0!	#DIV/0!	#DIV/0!	
unknown	response				
	ion ratio	#DIV/0!	#DIV/0!	#DIV/0!	
	pass / fail	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

# TEMPLATES FOR LC-ESI TANDEM MASS SPECTRAL COMPARISON

LAB # 2017-00469  
 DATE OF ANALYSIS 10/03-10/04/2017  
 ANALYST

b6 -1  
 b7C -1

## Ranitidine

Specimen		Diagnostic Ions (m/z)			Retention time (min)
		270	176	124	
JCS160831E, 1ppm	response	2026619	1216998	947779	3.58
	ion ratio	100.0	60.1	46.8	
item 1, blood	response	97559	57273	45305	3.58
	ion ratio	100.0	58.7	46.4	
	pass / fail	PASS	PASS	PASS	PASS

## Ranitidine

Specimen		Diagnostic Ions (m/z)			Retention time (min)
		270	176	124	
JCS160831E, 1ppm	response	2026619	1216998	947779	3.58
	ion ratio	100.0	60.1	46.8	
item 3, blood	response	1597580	966627	769309	3.58
	ion ratio	100.0	60.5	48.2	
	pass / fail	PASS	PASS	PASS	PASS

b6 -1  
 b7C -1

## Ranitidine

Specimen		Diagnostic Ions (m/z)			Retention time (min)
		270	176	124	
JCS160831E, 1ppm	response	2026619	1216998	947779	3.58
	ion ratio	100.0	60.1	46.8	
item 2, urine	response	26347408	15345290	11985789	3.51
	ion ratio	100.0	58.2	45.5	
	pass / fail	PASS	PASS	PASS	PASS

b6 -1  
 b7C -1

## Ranitidine

Specimen		Diagnostic Ions (m/z)			Retention time (min)
		270	176	124	
JCS160831E, 1ppm	response	2026619	1216998	947779	3.58
	ion ratio	100.0	60.1	46.8	
item 5, urine	response	330191388	193054876	154074769	3.31
	ion ratio	100.0	58.5	46.7	
	pass / fail	PASS	PASS	PASS	FAIL

1  
 notes



(04/10/2017)

**SOLID PHASE EXTRACTION OF ALKALINE DRUGS FROM BIOLOGICAL FLUIDS**  
CHEMISTRY UNIT TOXICOLOGY SOP 203-7

CHEMIST:   
DATE: 10/2/17-10/3/17

b6 -1  
b7C -1

PROCEDURE:

<input checked="" type="checkbox"/>	Add 1 mL biofluid (or 1 g prepared tissue homogenate) to labeled 16x100 mm screw-top test tubes.	
	Lot Negative Control(s):	<u>XP5788 (Buach); 72112 (Urine)</u>
	Lot Alkaline Screen Control Working Solution:	<u>ALK-pos-170705</u>
<input checked="" type="checkbox"/>	Add 50 µL Alkaline Screen Internal Standard Working Solutions to each test tube. (For tissue samples add 100 µL of each instead.)	LOT: <span style="border: 1px solid black; display: inline-block; width: 100px; height: 1.2em; vertical-align: middle;"></span>
<input checked="" type="checkbox"/>	Add 4 mL of 100 mM Phosphate buffer. Verify pH = 5.5-6.5.	LOT: <span style="border: 1px solid black; display: inline-block; width: 100px; height: 1.2em; vertical-align: middle;"></span> EXP: <u>11/11/17</u>
<input checked="" type="checkbox"/>	For blood / tissue, centrifuge at high speed for 15 minutes. Transfer supernatant to a clean 13x100 mm culture tube.	
<input checked="" type="checkbox"/>	Bring volume to 5 mL with DI water. Verify pH = 5.5-6.5	
<input checked="" type="checkbox"/>	Pre-rinse and condition Clean Screen DAU SPE cartridge at 1 mL/min with:	LOT: <u>612170-GA</u>
	<i>Do not let sorbent dry.</i>	
	<input checked="" type="checkbox"/> 3 mL methanol (HPLC Grade) <input checked="" type="checkbox"/> 3 mL deionized water <input checked="" type="checkbox"/> 1 mL 100 mM Phosphate Buffer	
	LOT: <u>167576 OPTIMA</u>	
<input checked="" type="checkbox"/>	Load sample onto SPE cartridge at 1-2 mL/minute. <i>Do not let sorbent dry.</i>	
<input checked="" type="checkbox"/>	Wash cartridge at 1-2 mL/min with:	
	<input checked="" type="checkbox"/> 3 mL deionized water <input checked="" type="checkbox"/> 1 mL of 100 mM acetic acid     LOT: <span style="border: 1px solid black; display: inline-block; width: 100px; height: 1.2em; vertical-align: middle;"></span> EXP: <u>1/25/18</u>	
	<input checked="" type="checkbox"/> 3 mL methanol (HPLC Grade) <span style="border: 1px solid black; display: inline-block; width: 40px; height: 1.2em; vertical-align: middle;"></span> <u>OPTIMA</u>	
<input checked="" type="checkbox"/>	Dry cartridge under full vacuum for 3 minutes.	
<input checked="" type="checkbox"/>	Apply 3 mL of Elution Solvent at 1-2 mL/min. Collect eluent in 12x75mm test tubes. <i>Prepare elution solvent fresh daily.</i>	
	20 mL isopropanol (HPLC grade)	LOT: <u>138398</u>
	2 mL conc. ammonium hydroxide (ACS grade)	LOT: <u>163894</u>
	78 mL methylene chloride (HPLC or pesticide grade)	LOT: <u>163634</u>
<input checked="" type="checkbox"/>	Evaporate to dryness under nitrogen at 40° C.	Temp: <u>40°C</u>
<u>10/2</u> <input checked="" type="checkbox"/>	Reconstitute in 40-50 µL methanol (GC <sup>2</sup> ) for GC/MS(EI) analysis.	LOT: <u>DE267</u> Recon Volume: <u>50</u> <span style="border: 1px solid black; display: inline-block; width: 20px; height: 1.2em; vertical-align: middle;"></span>
<u>10/3</u> <input checked="" type="checkbox"/>	Add 100 µL DI Water to methanol extract for LC/MS analysis.	LOT: <u>171725</u>
<input checked="" type="checkbox"/>	Analyze by any of the following:	
	<input checked="" type="checkbox"/> LC/MS (ESI) <u>0661-3</u> <u>10/3</u> <input checked="" type="checkbox"/> GC/MS (EI) <u>MSD-5</u> <u>10/2</u>	

b6 -1  
b7C -1  
b7E -9

b6 -1  
b7C -1  
b7E -9

b6 -1  
b7C -1

b6 -1  
b7C -1

Additional Notes / Deviations





Alkaline Drugs from Biological Fluids  
CHEMISTRY UNIT TOXICOLOGY SOP 203-7  
INSTRUMENTAL METHOD PARAMETERS

(04/10/2017)

CHEMIST:

DATE: 10/2/17 - 10/4/17

b6 -1  
b7C -1

GC/MS Instrument Name: CU-MSD-5		Method File Name: ALK-DRUG-SOP	
GC Oven Program:	<input checked="" type="checkbox"/> start at 60°C, hold 2 min	<input checked="" type="checkbox"/> ramp 35°C/min to 280°C	<input checked="" type="checkbox"/> hold 26.71 min
GC Inlet:	<input checked="" type="checkbox"/> Temp = 220°C	<input checked="" type="checkbox"/> Mode = split	<input checked="" type="checkbox"/> Split Ratio = 10:1
	<input checked="" type="checkbox"/> Injection Volume = 2 µL		
GC Carrier Gas:	<input checked="" type="checkbox"/> Mode = constant flow	<input checked="" type="checkbox"/> Flow = 1.2 mL/min	
Thermal Zones:	<input checked="" type="checkbox"/> Transfer Line = 280°C	<input checked="" type="checkbox"/> Source = 230°C (MSD)	<input checked="" type="checkbox"/> Quad = <del>180°C</del> 150°C
Mass Spectrometer:	<input checked="" type="checkbox"/> Source = EI, positive ion	<input checked="" type="checkbox"/> Mode = full scan	<input checked="" type="checkbox"/> Range = 35-500 m/z
	<input checked="" type="checkbox"/> Solvent Delay = <del>5 min</del> 4.5 min		

LC/MS Instrument Name: CU-ORBITRAP-3		Method File Name: alkaline-screen-new-SOP	
Mobile Phase #1:	<input checked="" type="checkbox"/> 0.1% formic acid in water	LOT: <span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span>	EXP: 10/16/17
Mobile Phase #2:	<input checked="" type="checkbox"/> 0.1% formic acid in acetonitrile	LOT: <span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span>	EXP: 11/2/17
Mobile Phase Gradient:	<input checked="" type="checkbox"/> start at 90% #1, hold 5 min	<input checked="" type="checkbox"/> ramp to 10% #1 at 20 min	<input checked="" type="checkbox"/> hold 10 min
	<input checked="" type="checkbox"/> ramp to 90% #1 at 31 min	<input checked="" type="checkbox"/> hold 5 min	
LC Column:	<input checked="" type="checkbox"/> Xterra C18-MS 3x150 mm, 3.5 µm dp	Column s/n	07333625912204
	<input checked="" type="checkbox"/> Flow Rate = 0.3 mL/min	<input checked="" type="checkbox"/> Temperature = 30°C	
Autosampler:	<input checked="" type="checkbox"/> Injection Volume = 10 µL	<input checked="" type="checkbox"/> Temperature = 15°C	
Mass Spectrometer:	<input checked="" type="checkbox"/> Source = ESI, positive ion	<input checked="" type="checkbox"/> # of Segments = 5	<input checked="" type="checkbox"/> Events per Segment = 7
Segment Times	<input checked="" type="checkbox"/> #1: 0-12 min    #2: 12-13.5 min    #3: 13.5 - 14 min    #4: 14-15 min    #5: 15-36 min		
Event #1:	<input checked="" type="checkbox"/> Mode = full scan MS	<input checked="" type="checkbox"/> Range = 100-650 m/z	<input checked="" type="checkbox"/> FTMS 15000 resolution
Events # 2-4	<input checked="" type="checkbox"/> Mode = full scan MSMS	<input checked="" type="checkbox"/> Data Dependent Product Ion	<input checked="" type="checkbox"/> ITMS unit resolution
	<input checked="" type="checkbox"/> MSMS of the 1st, 2nd, and 3rd most intense ions in Event #1 from segment-specific precursor target lists		
	<input checked="" type="checkbox"/> See SOP for target ion lists; ions may be added or removed - record below if this is done		
Event # 5	<input checked="" type="checkbox"/> Mode = full scan MS	<input checked="" type="checkbox"/> Range = 100-650 m/z	<input checked="" type="checkbox"/> FTMS 15000 resolution
Events # 6-7	<input checked="" type="checkbox"/> Mode = full scan MSMS	<input checked="" type="checkbox"/> Data Dependent Product Ion	<input checked="" type="checkbox"/> ITMS unit resolution
	<input checked="" type="checkbox"/> MSMS of the 1st and 2nd largest ions in Event #5		
<input checked="" type="checkbox"/> Events # 5-7 may be deleted for targeted analysis			

b6 -1  
b7C -1  
b7E -9

TARGET PRECURSOR ION LIST (IF APPLICABLE):

b6 -1  
b7C -1

NOTES & DEVIATIONS:

Instrument Method: 20171004\_phenethylamine-ms2ms3+ranitidine+tamsulosin.meth

LTQ Instrument Method

Creator: Administrator  
Last modified: 10/4/2017 by Administrator

MS Run Time (min): 37.00

Sequence override of method parameters not enabled.

Divert Valve: not used during run

Contact Closure: not used during run

Syringe Pump: not used during run

MS Detector Settings:

Real-time modifications to method disabled

Stepped collision energy not enabled

Additional Microscans:

MS2	0	0
MS3	0	0
MS4	0	0
MS5	0	0
MS6	0	0
MS7	0	0
MS8	0	0
MS9	0	0
MS10	0	0

Segment 1 Information

Duration (min): 37.00  
Number of Scan Events: 5  
Tune Method: ALKALINE\_TUNE

Scan Event Details:

1: FTMS + c norm !corona !pi res=15000 b(100.0-650.0)  
CV = 0.0V

2: LTMS + c norm !corona !pi -( 122.10)->-(50.0-125.0)  
MS/MS: AT CID CE 40.0% Q 0.250 Time 30.000 IsoW 2.0  
CV = 0.0V

3: LTMS + c norm !corona !pi -( 122.10)->-( 104.85)->-(50.0-135.0)  
MS2: AT CID CE 40.0% Q 0.250 Time 30.000 IsoW 2.0  
MS3: AT CID CE 40.0% Q 0.250 Time 30.000 IsoW 2.0  
CV = 0.0V

4: LTMS + c norm !corona !pi -( 215.15)->-(85.0-325.0)  
MS/MS: AT CID CE 40.0% Q 0.250 Time 30.000 IsoW 2.0  
CV = 0.0V

5: LTMS + c norm !corona !pi -( 409.16)->-(110.0-435.0)  
MS/MS: AT CID CE 40.0% Q 0.250 Time 30.000 IsoW 2.0  
CV = 0.0V

Wednesday, October 04, 2017 17:36:00

b6 -1  
b7C -1

2017-00469 1027-2017

Instrument Method: 20171004\_phenethylamine-ms2ms3+ranitidine+tamsulosin.meth

LTQ Instrument Method

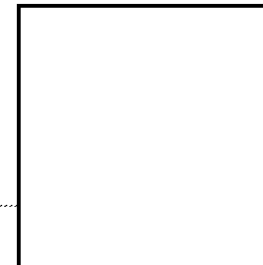
Lock Masses:

Pos List Name:	N/A
Source:	API Source
Mass List:	{none}
Neg List Name:	N/A
Source:	API Source
Mass List:	{none}

Custom Data Dependent Settings:

Not enabled

2017-00469 1027-2017



b6 -1  
b7C -1

Wednesday, October 04, 2017 17:36:00



Shimadzu LC Method Parameters

Pumps

=====

Pump A Model: LC-20AD  
Pump B Model: LC-20AD  
Pump C Model: LC-20AD  
Pump D Model: LC-20AD  
Pumping Mode: Binary Flow  
Total Flow: 0.3000 mL/min  
Pump B Conc: 10.0 %  
B Curve: 0  
Pump C Flow: 0.0000 mL/min  
Pump D Flow: 0.0000 mL/min  
Pressure Range (Pump A/B): 0 - 4000 psi  
Pressure Range (Pump C): 0 - 4000 psi  
Pressure Range (Pump D): 0 - 4000 psi

Autosampler

=====

Model: SIL-20AC/RT  
Use Autosampler: Yes  
Rinsing Volume: 500 uL  
Needle Stroke: 52 mm.  
Rinsing Speed: 35 uL/sec  
Sampling Speed: 15.0 uL/sec  
Purge Time: 5.0 min  
Rinse Dip Time: 2 sec  
Rinse Mode: Before aspiration  
Cooler Enabled: Yes  
Cooler Temperature: 15 deg. C  
Control Vial Needle Stroke: 52 mm

Oven

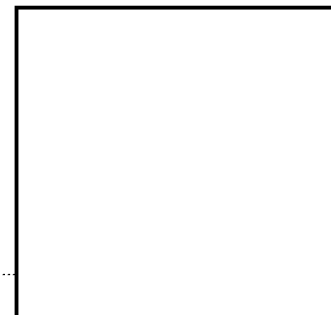
=====

Model: CTO-20AC  
Temperature Control: Enabled  
Temperature: 30 deg. C  
Max. Temperature: 85 deg. C

System Controller

=====

Model: CRM-20A  
Power: On  
Event 1: Off  
Event 2: Off  
Event 3: Off



b6 -1  
b7C -1

Shimadzu LC Method Parameters				
Time Program				
=====				
Time	Module		Events	Parameter
5.00		Pumps	Pump B Conc.	10
20.00		Pumps	Pump B Conc.	90
30.00		Pumps	Pump B Conc.	90
31.00		Pumps	Pump B Conc.	10
37.00		Pumps	Pump B Conc.	10
37.00	System Controller		Stop	

b6 -1  
b7C -1

2017-08-09 10:27-2017

Sequence Name:   
Comment: ALK screen  
Operator:   
Data Path:

b6 -1  
b7C -1  
b7E -2

Instrument Control Pre-Seq Cmd:  
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:  
Data Analysis Post-Seq Cmd:

Method Sections To Run On A Barcode Mismatch

(X) Full Method (X) Inject Anyway  
( ) Reprocessing Only ( ) Don't Inject

Line	Sample Name/Misc Info
------	-----------------------

1) Sample	1 solvent blank
Datafile	01
Method	ALK_DRUG_SOP
2) Sample	1 solvent blank
Datafile	02
Method	ALK_DRUG_SOP
3) Sample	2 solvent blank
Datafile	03
Method	ALK_DRUG_SOP
4) Sample	3 neg ctrl blood
Datafile	04
Method	ALK_DRUG_SOP
5) Sample	4 solvent blank
Datafile	05
Method	ALK_DRUG_SOP
6) Sample	3 neg ctrl blood
Datafile	06
Method	ALK_DRUG_SOP
7) Sample	5 2017-00469, 1, blood
Datafile	07
Method	ALK_DRUG_SOP
8) Sample	6 solvent blank
Datafile	08
Method	ALK_DRUG_SOP
9) Sample	7 2017-00469, 3, blood
Datafile	09
Method	ALK_DRUG_SOP
10) Sample	8 solvent blank
Datafile	10
Method	ALK_DRUG_SOP
11) Sample	9 2017-02632, 1, blood
Datafile	11
Method	ALK_DRUG_SOP
12) Sample	10 solvent blank
Datafile	12
Method	ALK_DRUG_SOP
13) Sample	11 2017-02633, 1, blood
Datafile	13
Method	ALK_DRUG_SOP
14) Sample	12 solvent blank
Datafile	14
Method	ALK_DRUG_SOP

VERIFIED  
 10/2/17



b6 -1  
b7C -1

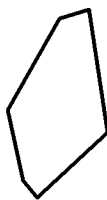


b6 -1  
b7C -1

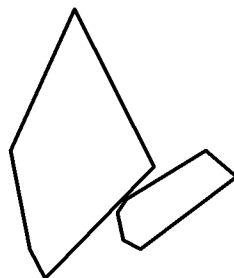
15) Sample 13 2017-02692, 1(A), blood  
Datafile 15  
Method ALK\_DRUG\_SOP  
16) Sample 14 solvent blank  
Datafile 16  
Method ALK\_DRUG\_SOP  
17) Sample 15 2017-02693#1, 1(A), blood  
Datafile 17  
Method ALK\_DRUG\_SOP  
18) Sample 16 solvent blank  
Datafile 18  
Method ALK\_DRUG\_SOP  
19) Sample 17 2017-02695, 1(A), blood  
Datafile 19  
Method ALK\_DRUG\_SOP  
20) Sample 18 solvent blank  
Datafile 20  
Method ALK\_DRUG\_SOP  
21) Sample 19 pos ctrl blood  
Datafile 21  
Method ALK\_DRUG\_SOP  
22) Sample 1 solvent blank  
Datafile 22  
Method ALK\_DRUG\_SOP  
23) Sample 1 solvent blank  
Datafile 23  
Method ALK\_DRUG\_SOP  
24) Sample 2 solvent blank  
Datafile 24  
Method ALK\_DRUG\_SOP  
25) Sample 20 neg ctrl urine  
Datafile 25  
Method ALK\_DRUG\_SOP  
26) Sample 21 solvent blank  
Datafile 26  
Method ALK\_DRUG\_SOP  
27) Sample 20 neg ctrl urine  
Datafile 27  
Method ALK\_DRUG\_SOP  
28) Sample 22 2017-00469, 2, urine  
Datafile 28  
Method ALK\_DRUG\_SOP  
29) Sample 23 solvent blank  
Datafile 29  
Method ALK\_DRUG\_SOP  
30) Sample 24 2017-00469, 5, urine  
Datafile 30  
Method ALK\_DRUG\_SOP  
31) Sample 25 solvent blank  
Datafile 31  
Method ALK\_DRUG\_SOP  
32) Sample 26 pos ctrl urine  
Datafile 32  
Method ALK\_DRUG\_SOP  
33) Sample 1 solvent blank  
Datafile 33  
Method ALK\_DRUG\_SOP  
34) Sample 2 solvent blank  
Datafile 34

b6 -1  
b7C -1

b6 -1  
b7C -1



b6 -1  
b7C -1



b6 -1  
b7C -1

Qualitative Standards used in Alkaline Screen target 1ppm std mix:

Compound	Lot
Cyclobenzaprine (100ppm)	
n-Desmethycyclobenzaprine (100ppm)	
Ecgonine Ethyl Ester (100ppm)	
2-Phenethylamine (104.7ppm)	
Ranitidine (100.2ppm)	

b6 -1  
b7C -1  
b7E -9

~1ppm Mix:

10µL of each 100ppm qualitative standard was added to a test tube with 280µL of GC<sup>2</sup> Methanol (Lot# DI267). 670µL of Optima grade water (Lot#171725) was added to the test tube. A portion of the mixture was transferred to an autosampler vial.

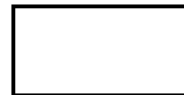
Compound	Lot
Tamsulosin (94ppm)	CA070120160

~1ppm Std:

10µL of the 100ppm qualitative standard was added to a test tube with 320µL of GC<sup>2</sup> Methanol (Lot# DI267). 670µL of Optima grade water (Lot#171725) was added to the test tube. A portion of the mixture was transferred to an autosampler vial.

10/4/17

b6 -1  
b7C -1



Path

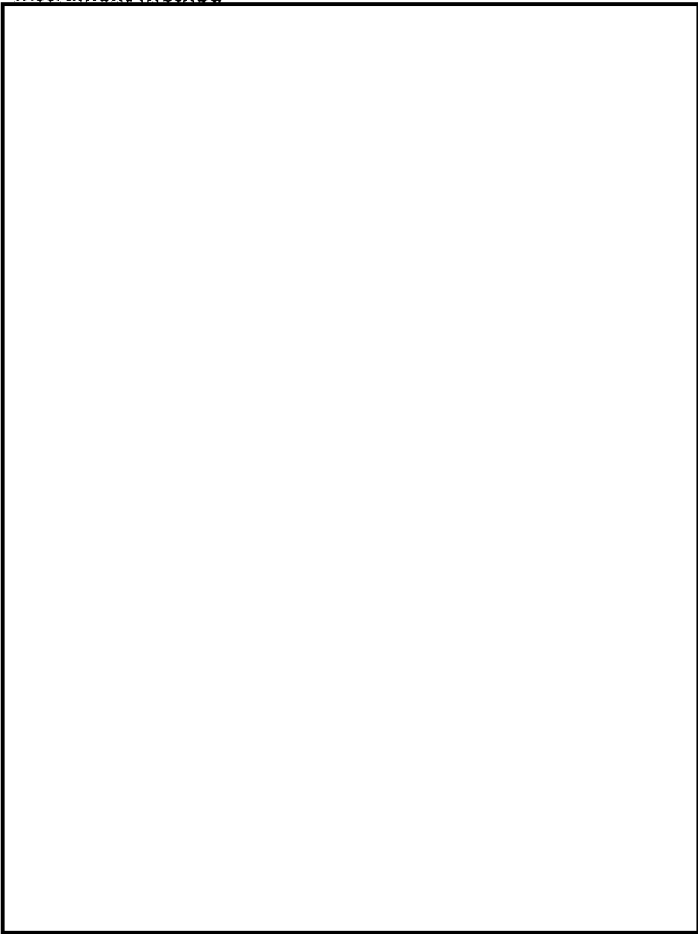
[Redacted]

Inj Vol

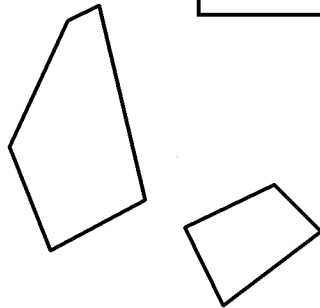
10 ul

VERIFIED  
10/3/17

b6 -1  
b7C -1  
b7E -2

<u>File Name</u>	<u>Sample Name</u>	<u>Position</u>	<u>Instrument Method</u>
1	sb	1:01	
2	sb	1:01	
3	ncb	1:02	
4	2017-00469, 1, blood	1:03	
5	sb	1:04	
6	2017-00469, 3, blood	1:05	
7	sb	1:06	
8	2017-02632, 1, blood	1:07	
9	sb	1:08	
10	2017-02633, 1, blood	1:09	
11	sb	1:10	
12	2017-02692, 1(A), blood	1:11	
13	sb	1:12	
14	2017-02693#1, 1(A), blood	1:13	
15	sb	1:14	
16	2017-02695, 1(A), blood	1:15	
17	sb	1:16	
18	pcb	1:17	
19	sb	1:18	
20	sb	1:18	
21	ncu	1:19	
22	2017-00469, 2, urine	1:20	
23	sb	1:21	
24	2017-00469, 5, urine	1:22	
25	sb	1:23	
26	pcu	1:24	
flush	sb-flush	1:06	
standby	sb-standby	1:08	

b7E -2



b6 -1  
b7C -1

Path

Ini Vol

10ul

File Name

Sample Name

Position

Instrument Method

trgt_01	sb	1:01
trgt_02	sb	1:01
trgt_03	ncb	1:02
trgt_04	2017-00469, 1, blood	1:03
trgt_05	sb	1:04
trgt_06	2017-00469, 3, blood	1:05
trgt_07	sb	1:18
trgt_08	sb	1:18
trgt_09	ncu	1:19
trgt_10	2017-00469, 2, urine	1:20
trgt_11	sb	1:21
trgt_12	2017-00469, 5, urine	1:22
trgt_13	1ppm std mix	1:25
trgt_14	1ppm tamsulosin std	1:26
trgt_15	sb	1:06
trgt_16	sb	1:06
trgt_17	ncb	1:02
trgt_18	2017-02632, 1, blood	1:07
trgt_19	sb	1:12
trgt_20	2017-02693#1, 1(A), blood	1:13
trgt_21	1ppm std mix	1:25
trgt_22	sb	1:23
trgt_flush	sb-flush	1:16
trgt_standby	sb-standby	1:21

BLUFED  
10/4/17

b6 -1  
b7C -1  
b7E -2

b6 -1  
b7C -1  
b7E -2

b6 -1  
b7C -1

FBI(20-cv-0545)-1368

2017-00469 1027-2017



10/3/2017 11:11:46 AM

2017-00469, 1, blood

b6 -1

b7C -1

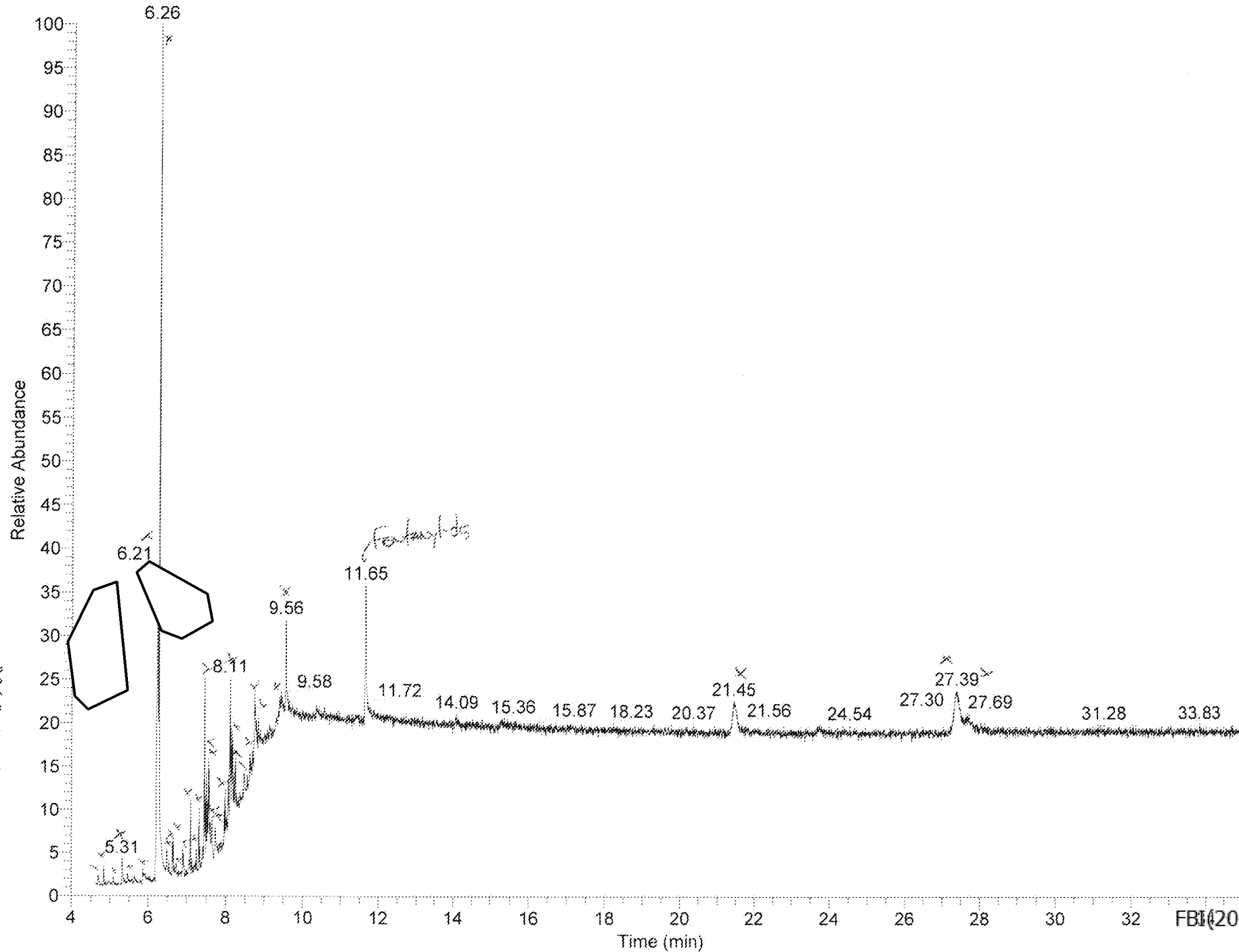
b7E -2

RT: 4.00 - 35.00

NL:

3.71E5

TIC MS 07



b6 -1

b7C -1

FBI(20-cv-0545)-1369

2017-00469 1027-2017

10/3/2017 11:11:46 AM

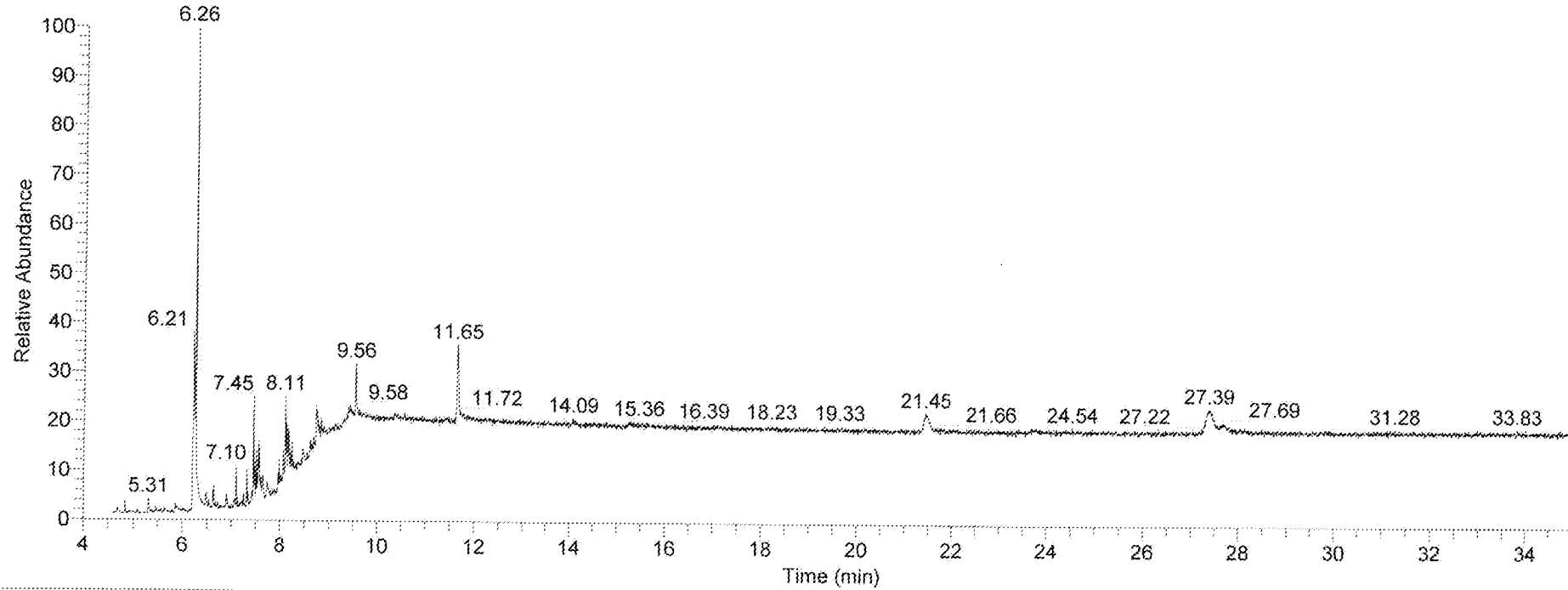
2017-00469, 1, blood

b6 -1

b7C -1

b7E -2

RT: 4.00 - 35.00

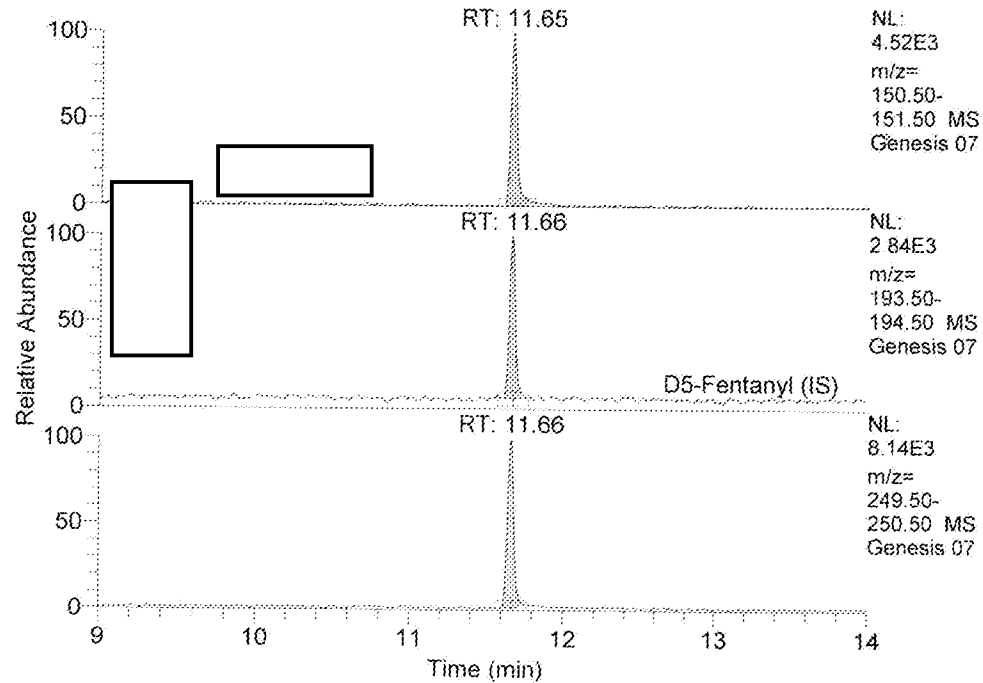


NL:

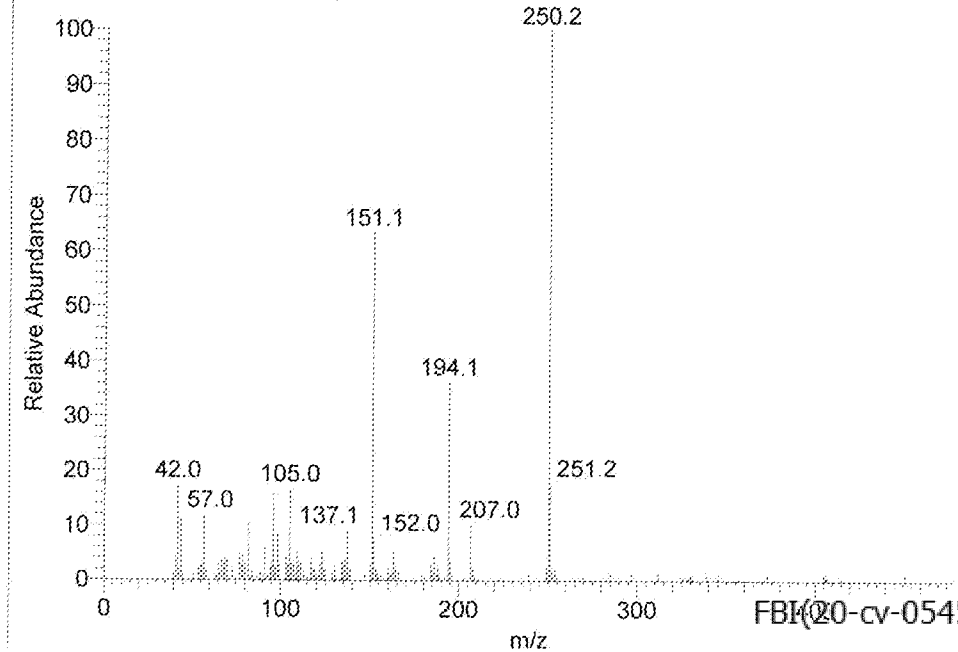
3.71E5

TIC MS 07

RT: 9.00 - 14.00 SM: 7B



07 #1320 RT: 11.65 AV: 1 SB: 12 10.86-11.01 NL: 8.77E3  
T: + c EI Full ms [0.00-479.00]



b6 -1

b7C -1

2017-00469 1027-2017  
FBI(20-cv-0545)-1370

10/3/2017 11:11:46 AM

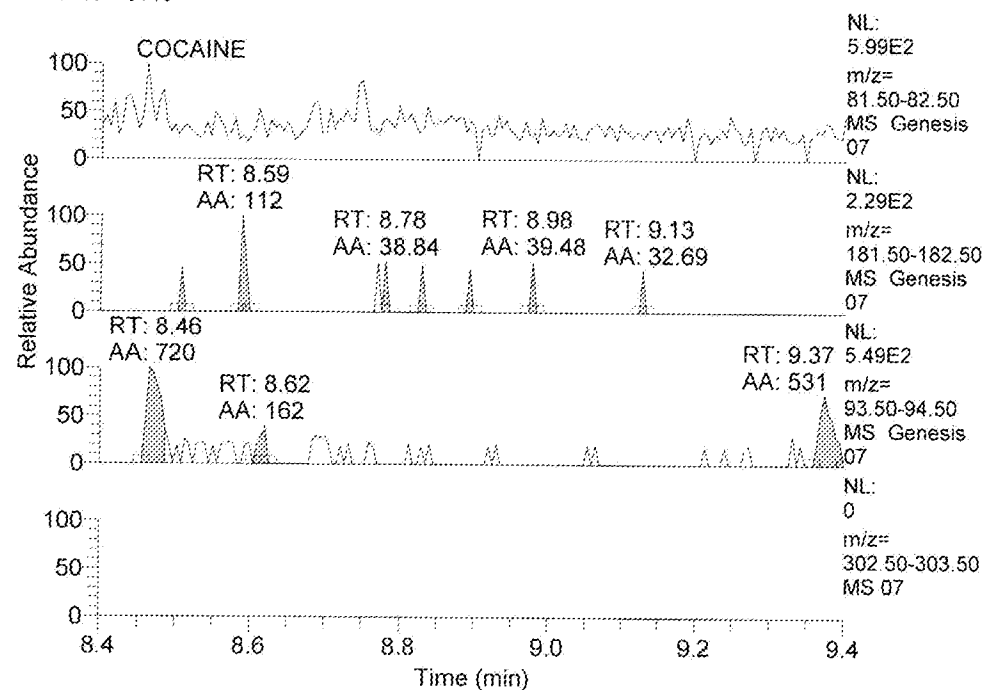
2017-00469, 1, blood

b6 -1

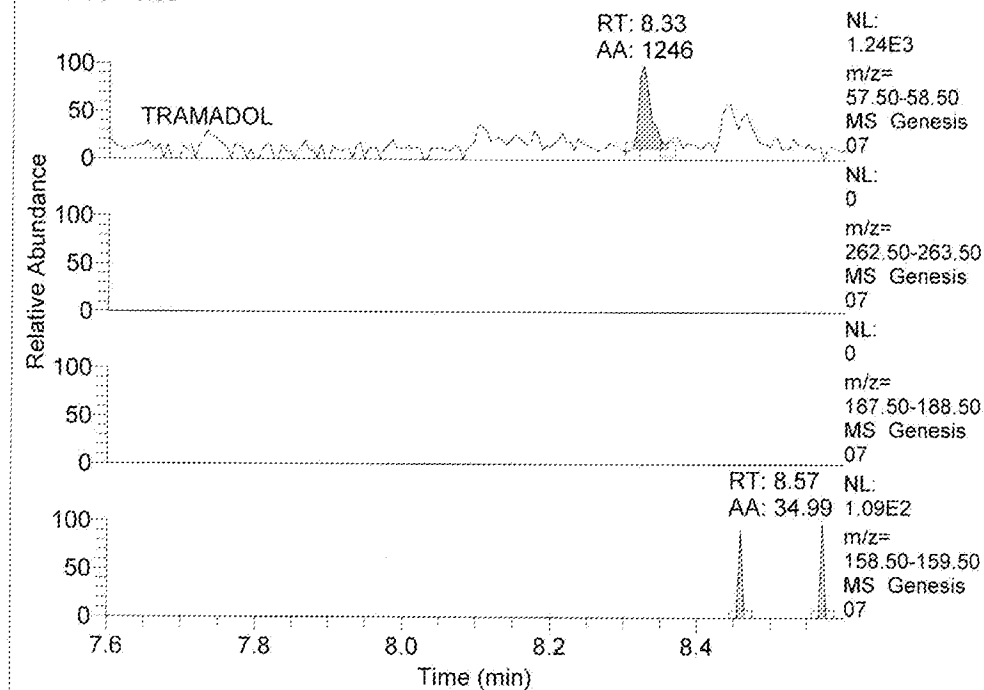
b7C -1

b7E -2

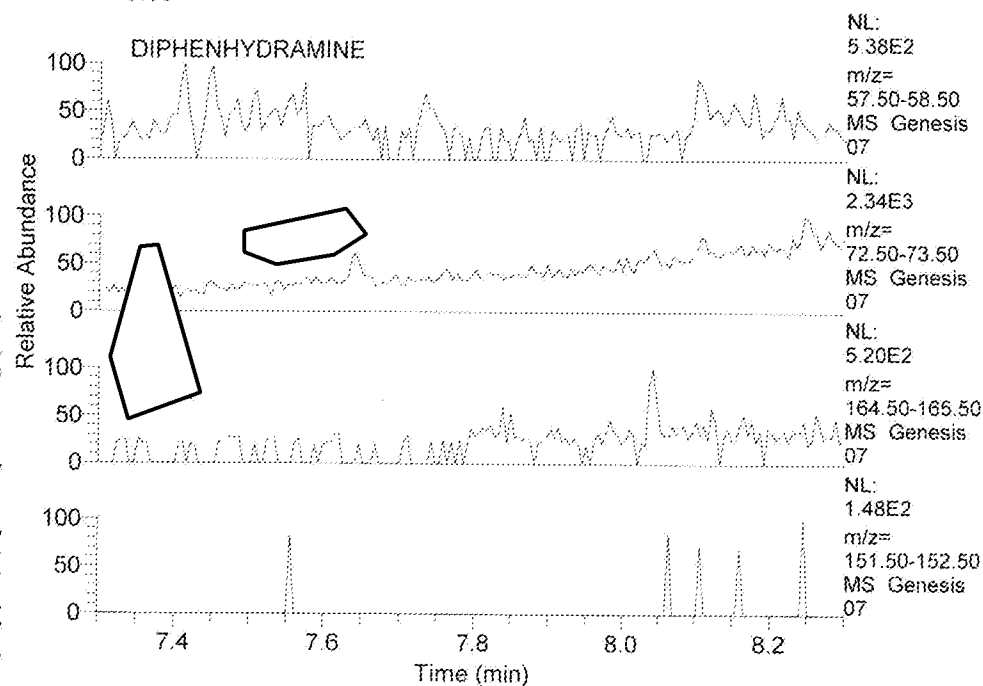
RT: 8.40 - 9.40



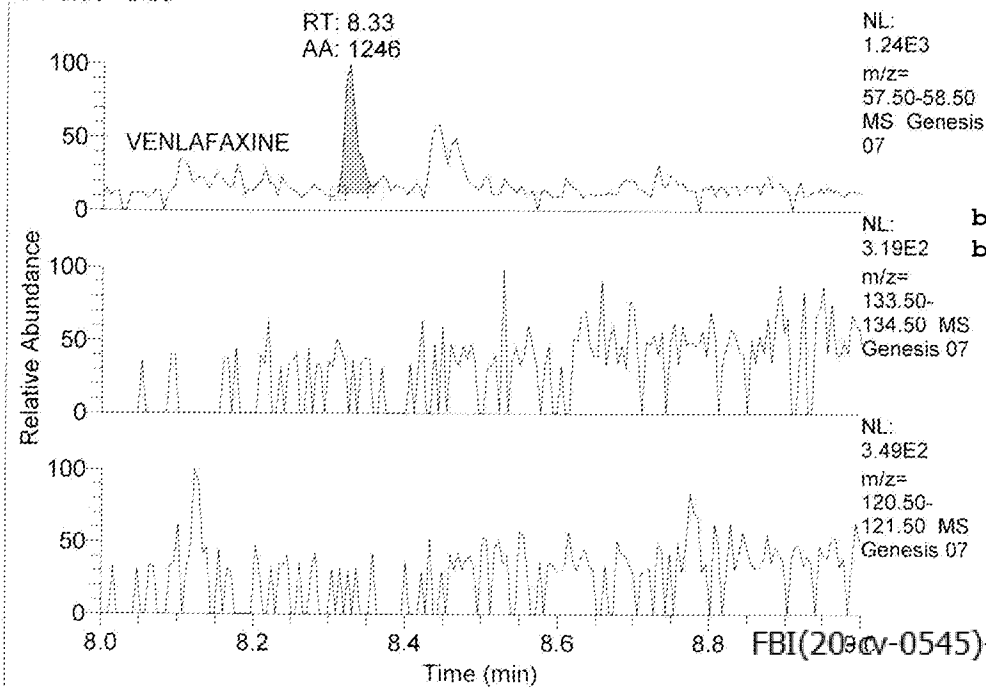
RT: 7.60 - 8.60



RT: 7.30 - 8.30



RT: 8.00 - 9.00

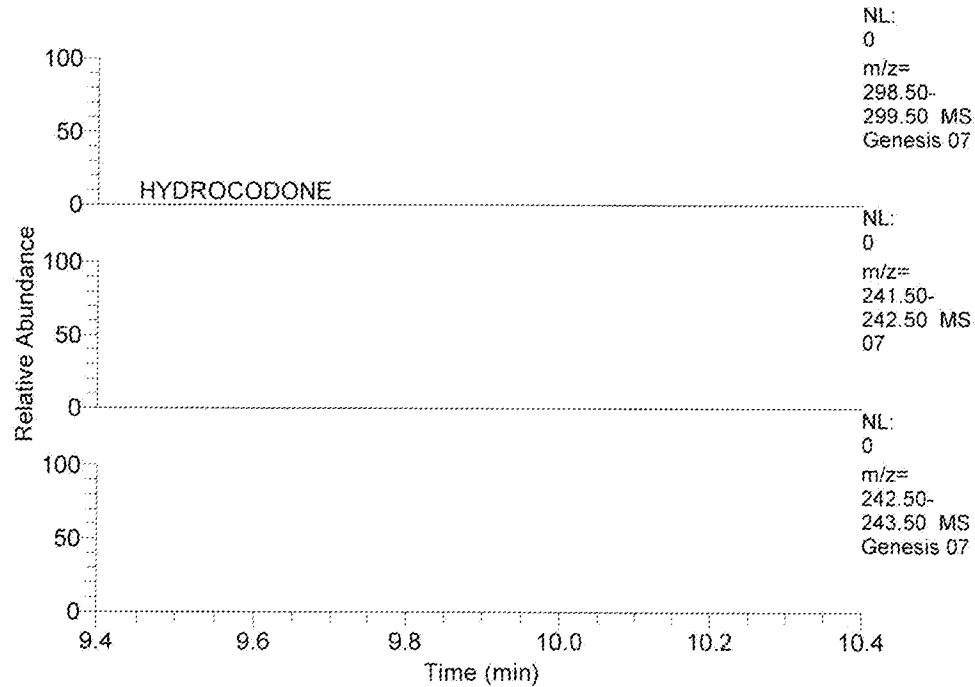


b6 -1

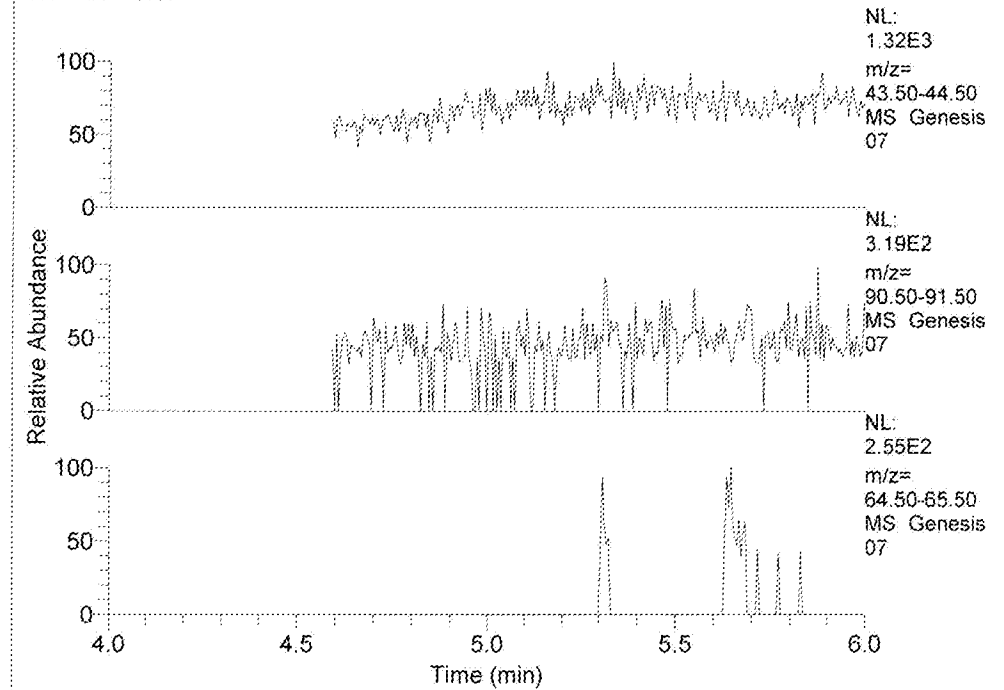
b7C -1

FBI(2017-cv-0545)-1371

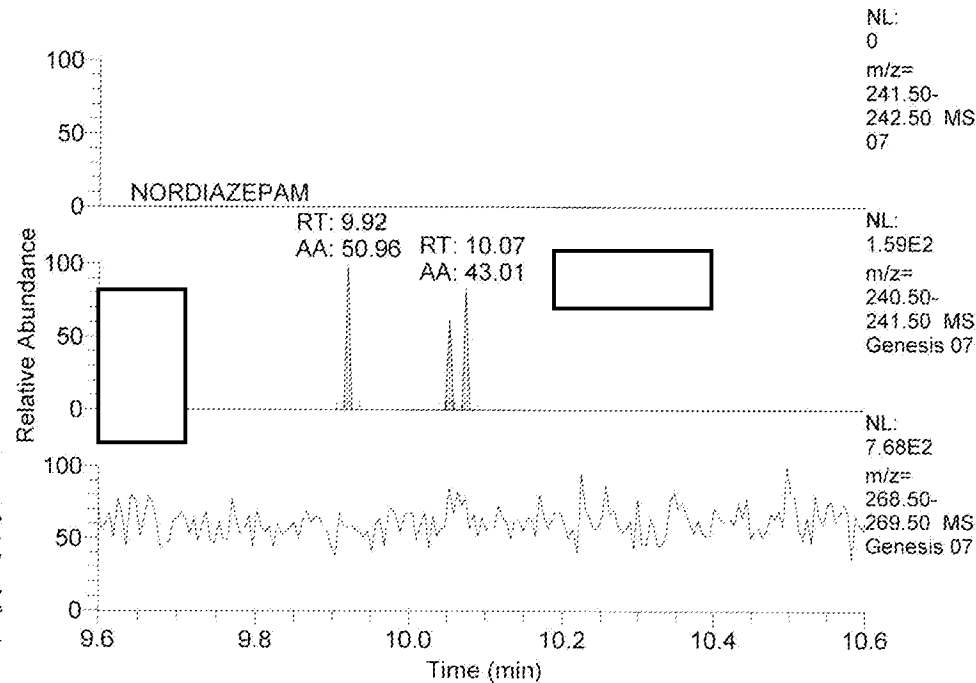
RT: 9.40 - 10.40



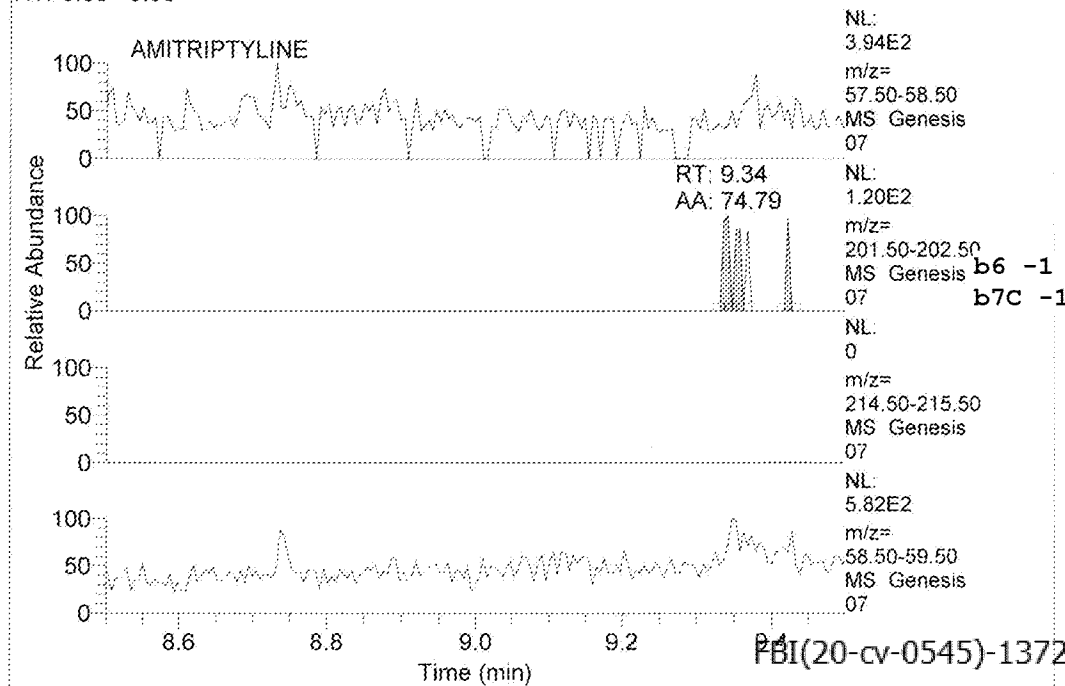
RT: 4.00 - 6.00



RT: 9.60 - 10.60



RT: 8.50 - 9.50

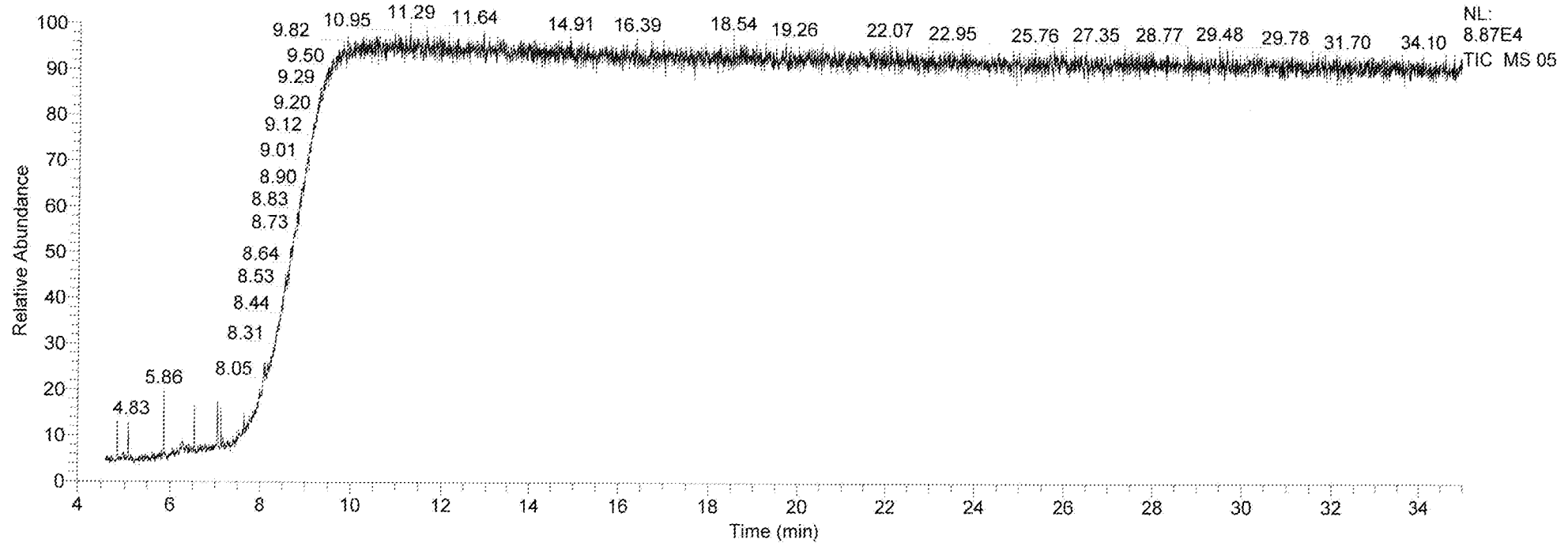


10/3/2017 11:11:43 AM

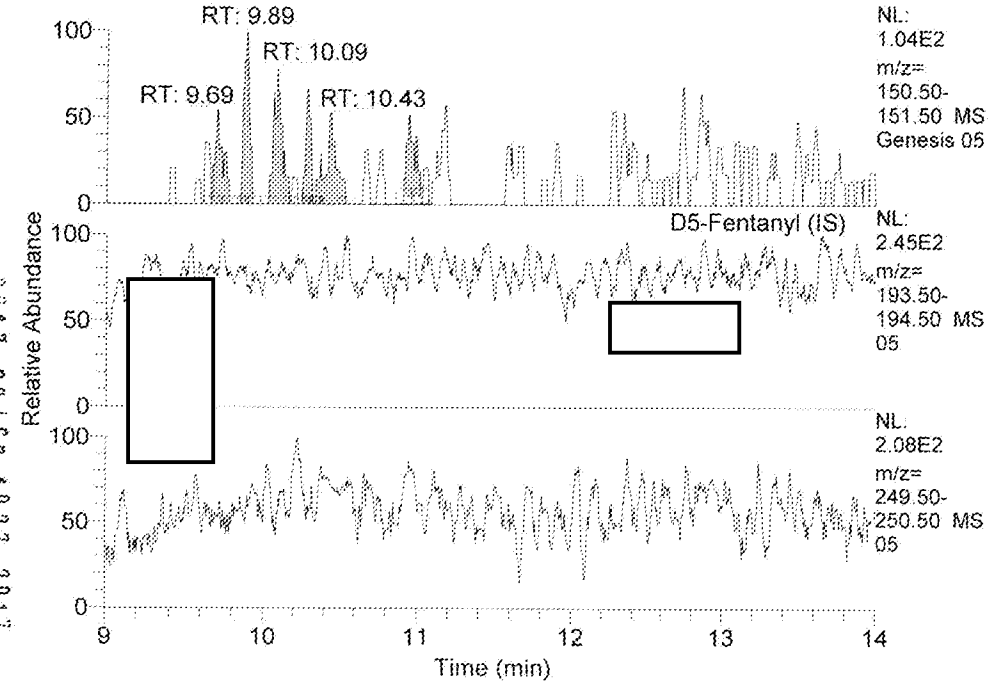
solvent blank

b6 -1  
b7C -1  
b7E -2

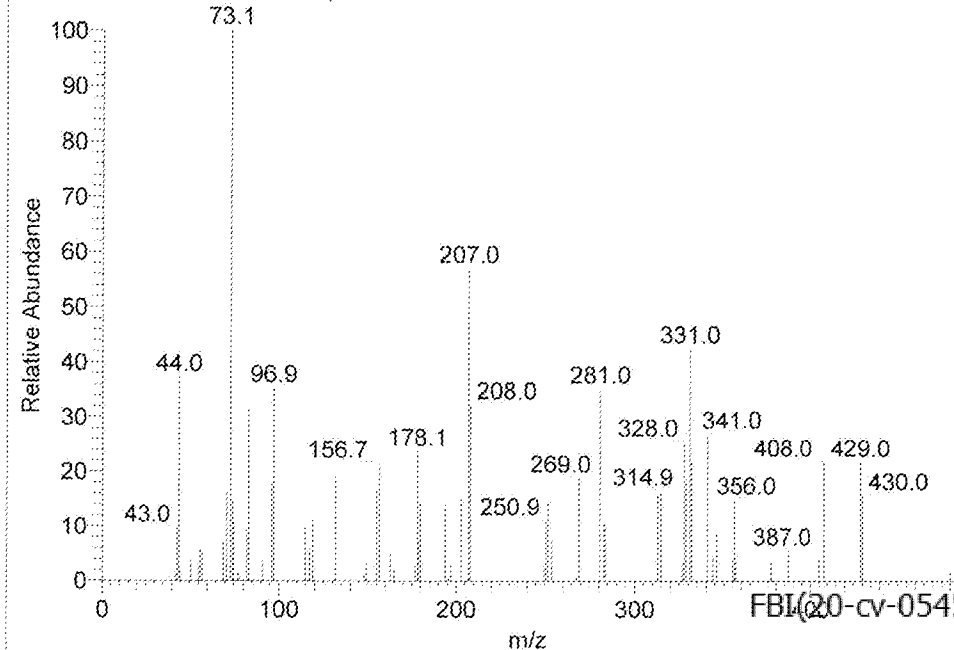
RT: 4.00 - 35.00



RT: 9.00 - 14.00 SM: 7B



05 #1107 RT: 10.51 AV: 1 SB: 1 10.86-11.01 NL: 7.52E2  
T: + c EI Full ms [0.00-481.00]



b6 -1  
b7C -1

FBI(20-cv-0545)-1373

10/3/2017 11:11:48 AM

2017-00469, 3, blood

b6 -1

b7C -1

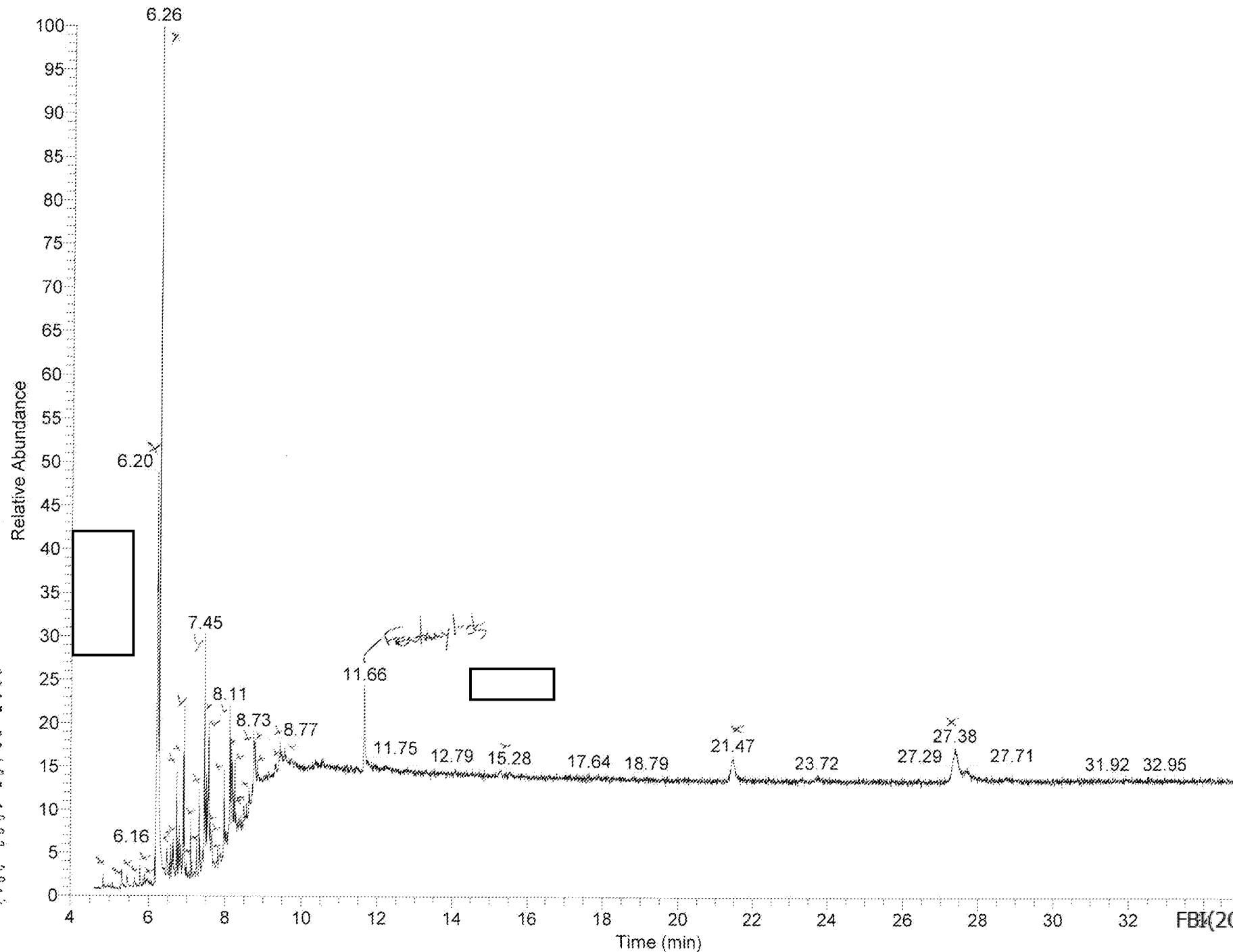
b7E -2

RT: 4.00 - 35.00

NL:

5.08E5

TIC MS 09



b6 -1

b7C -1

2017-00469 1027-2017

FBI(20-cv-0545)-1374

10/3/2017 11:11:48 AM

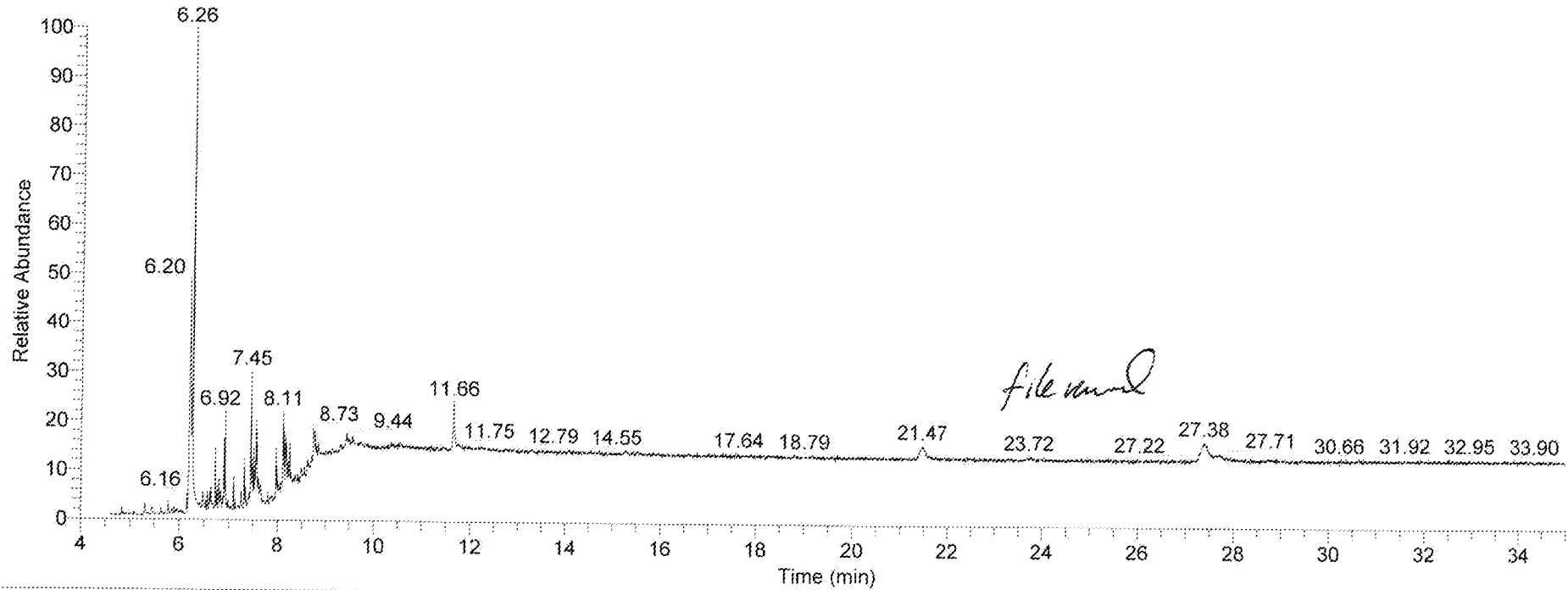
2017-00469, 3, blood

b6 -1

b7C -1

b7E -2

RT: 4.00 - 35.00

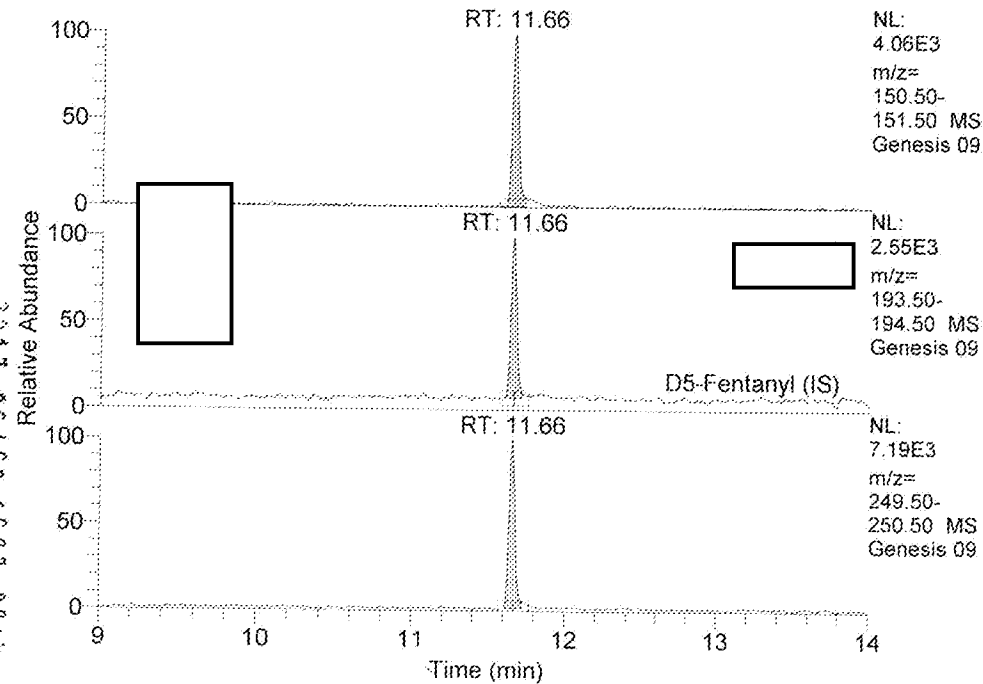


NL:

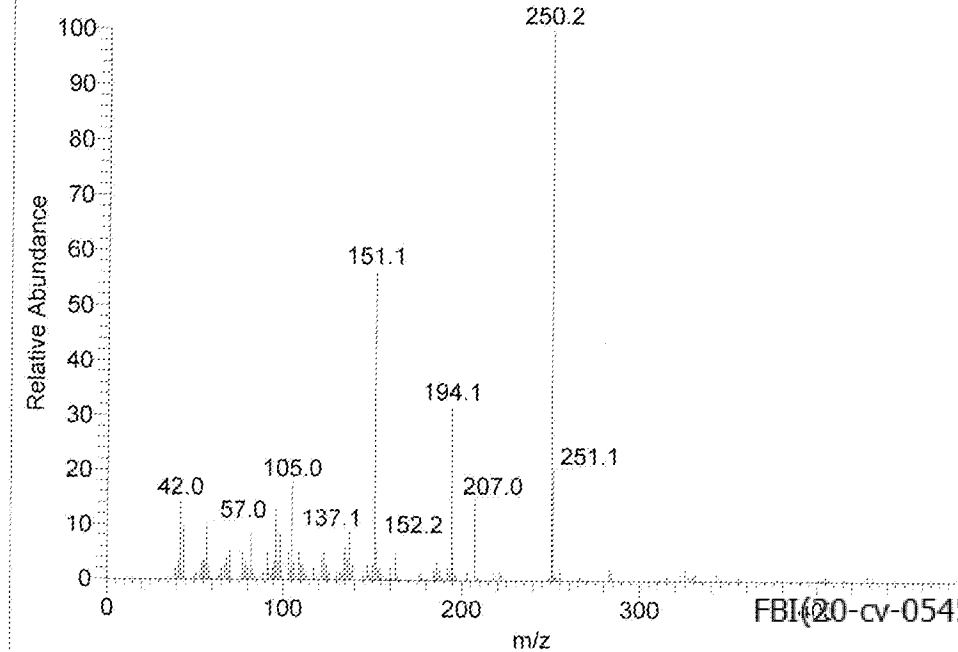
5.08E5

TIC MS 09

RT: 9.00 - 14.00 SM: 7B



09 #1322 RT: 11.66 AV: 1 SB: 11 10 86-11.01 NL: 9.63E3  
T: + c EI Full ms [0.00-479.00]



b6 -1

b7C -1

FBI(20-cv-0545)-1375

10/3/2017 11:11:48 AM

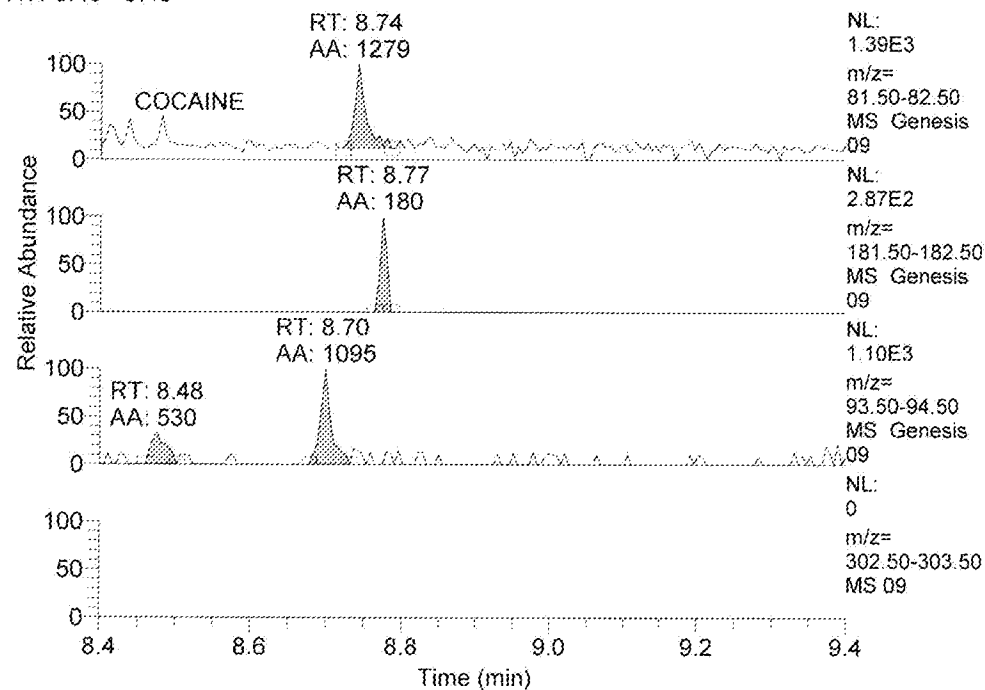
2017-00469, 3, blood

b6 -1

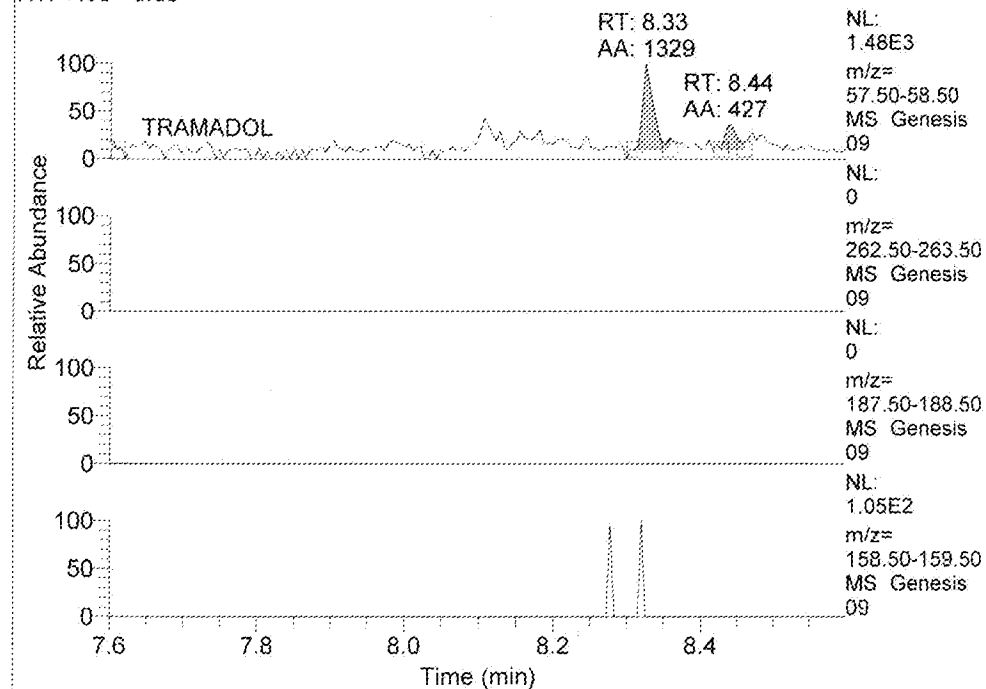
b7C -1

b7E -2

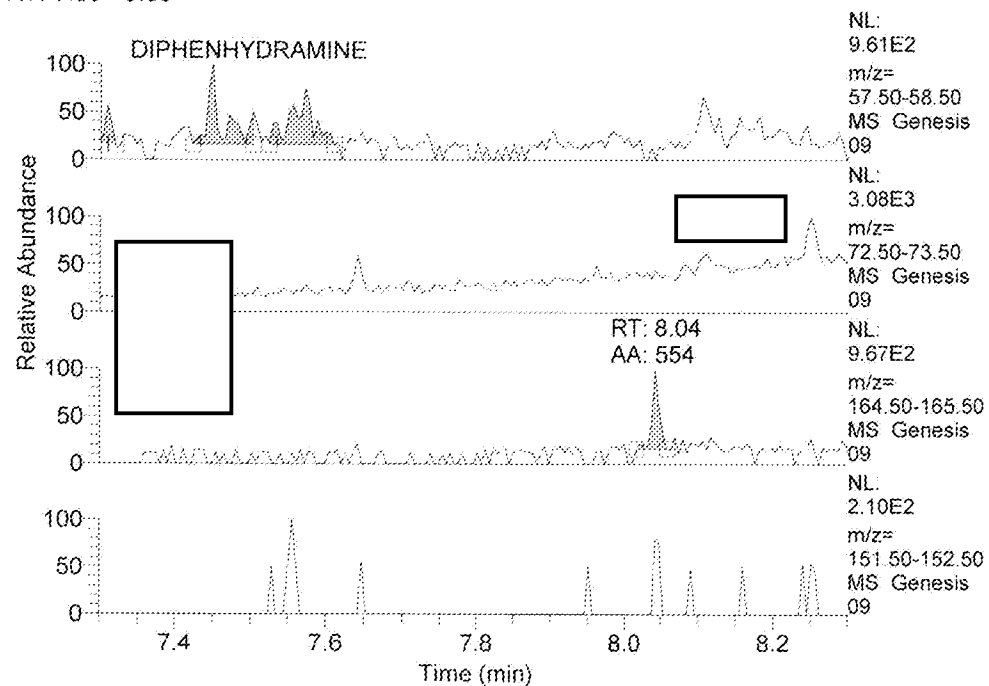
RT: 8.40 - 9.40



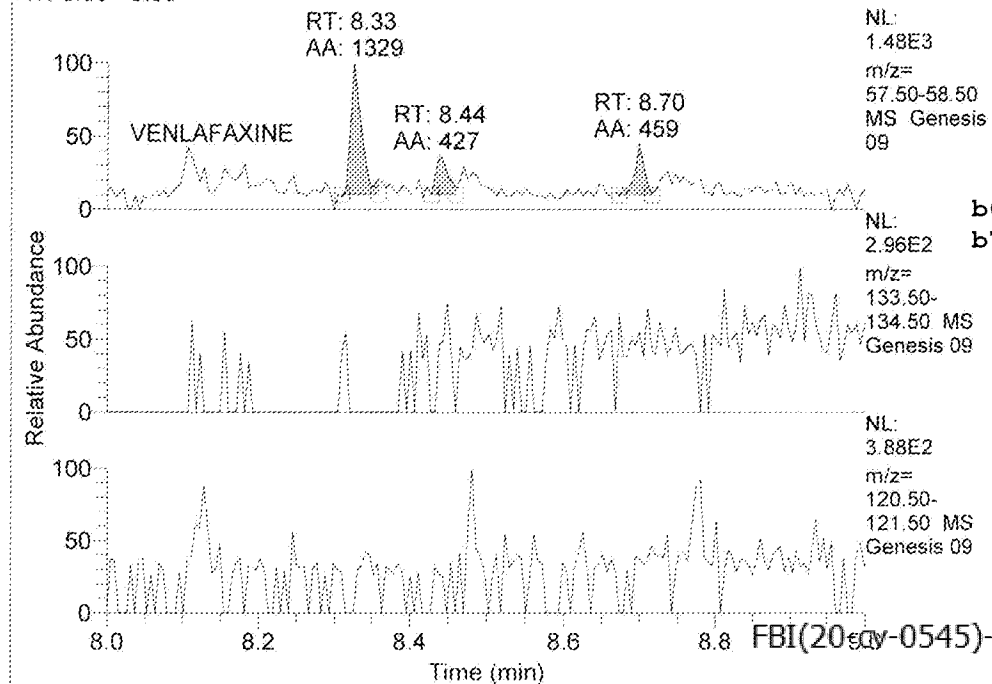
RT: 7.60 - 8.60



RT: 7.30 - 8.30



RT: 8.00 - 9.00



b6 -1

b7C -1

FBI(20-cv-0545)-1376



10/3/2017 11:11:48 AM

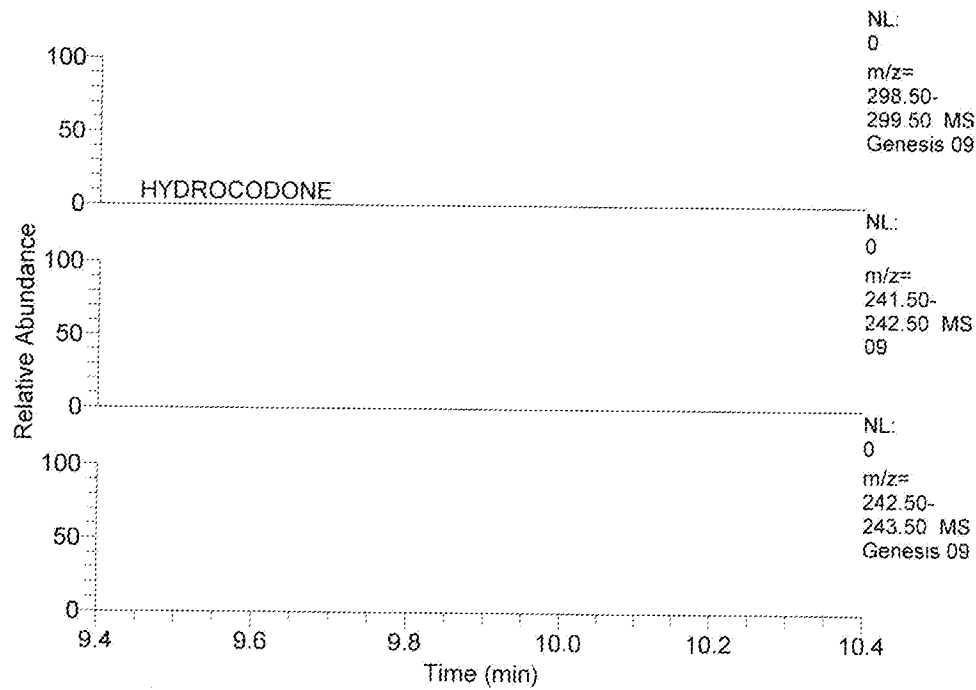
2017-00469, 3, blood

b6 -1

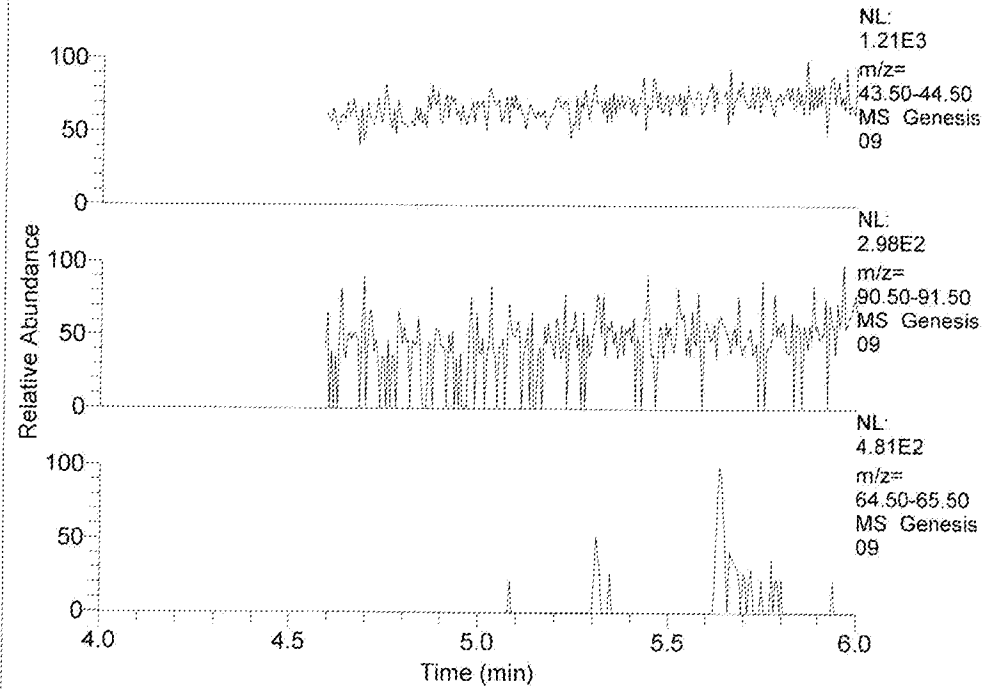
b7C -1

b7E -2

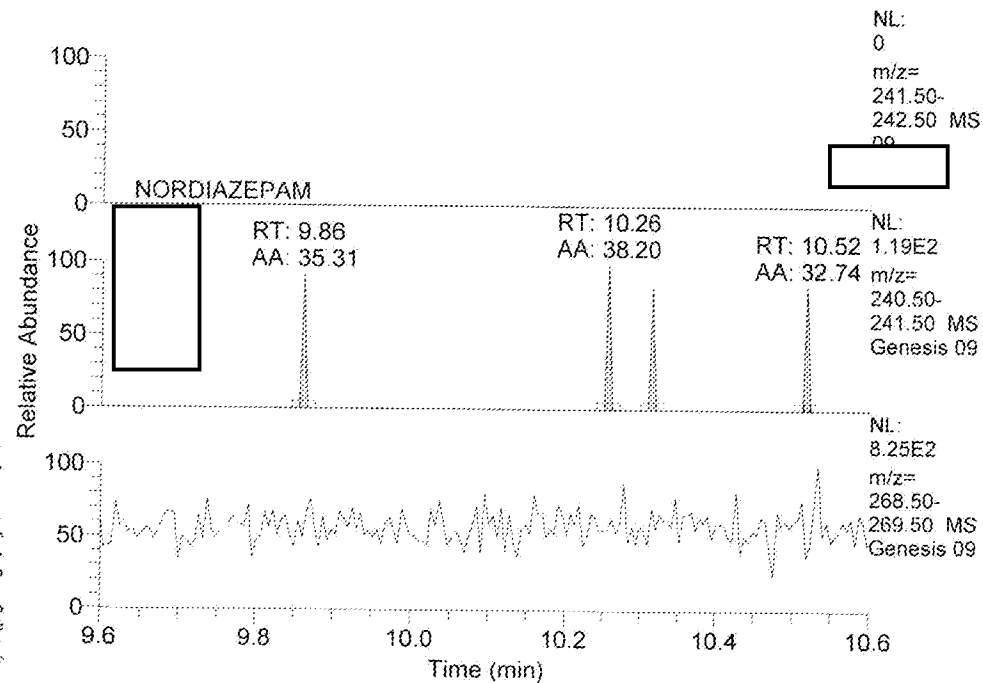
RT: 9.40 - 10.40



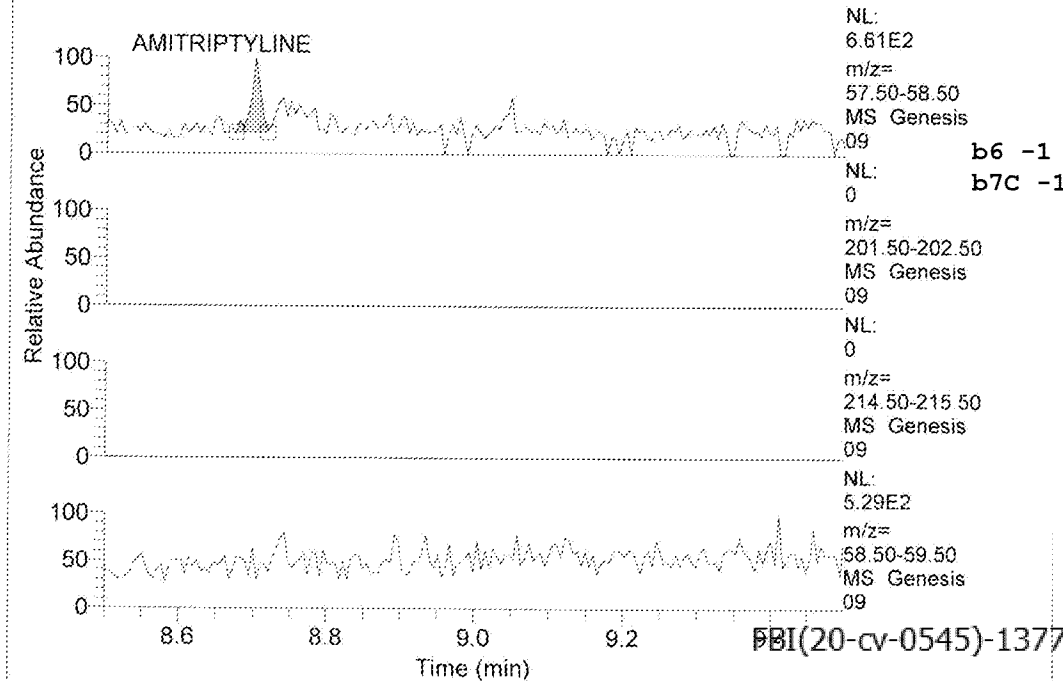
RT: 4.00 - 6.00



RT: 9.60 - 10.60



RT: 8.50 - 9.50



b6 -1

b7C -1

FBI(20-cv-0545)-1377

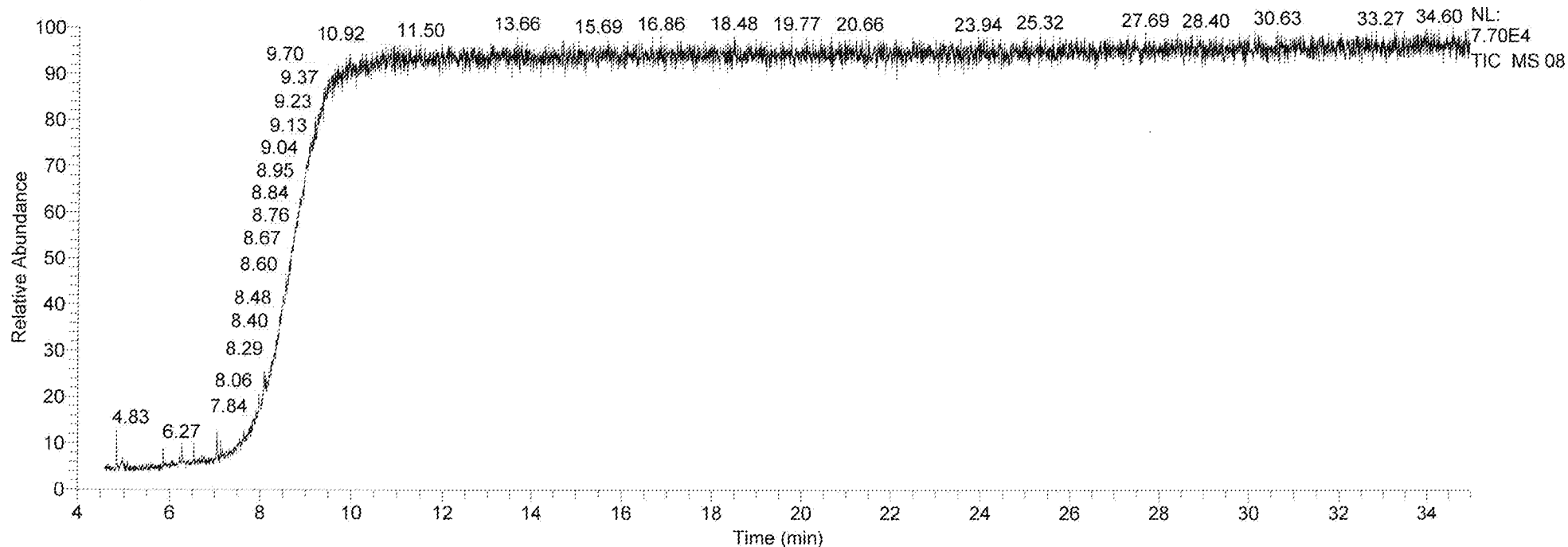
2017-00469-1102

10/3/2017 11:11:47 AM

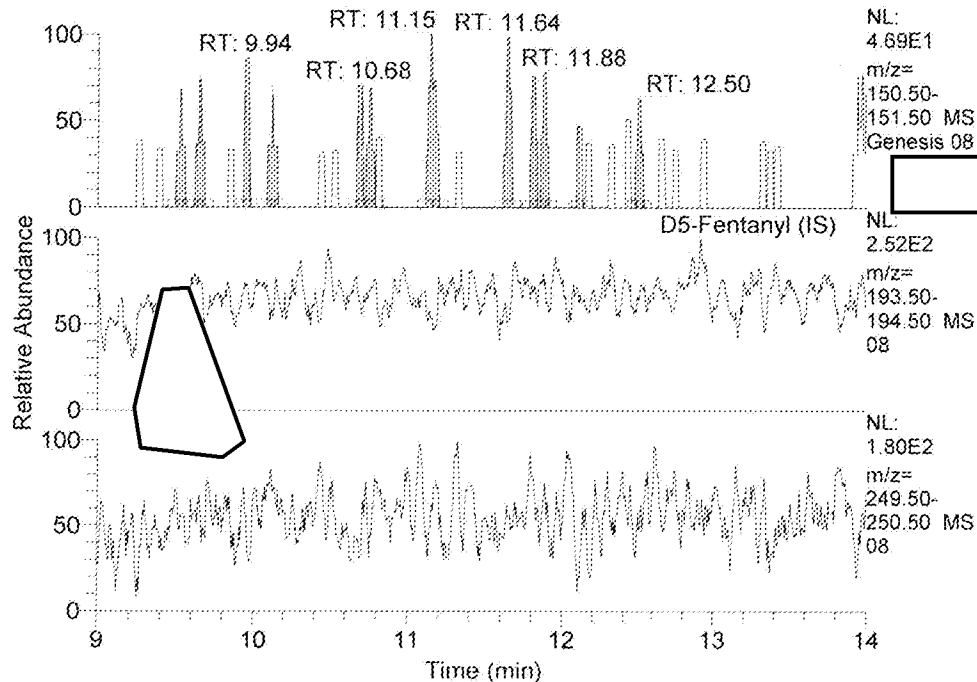
solvent blank

b6 -1  
b7C -1  
b7E -2

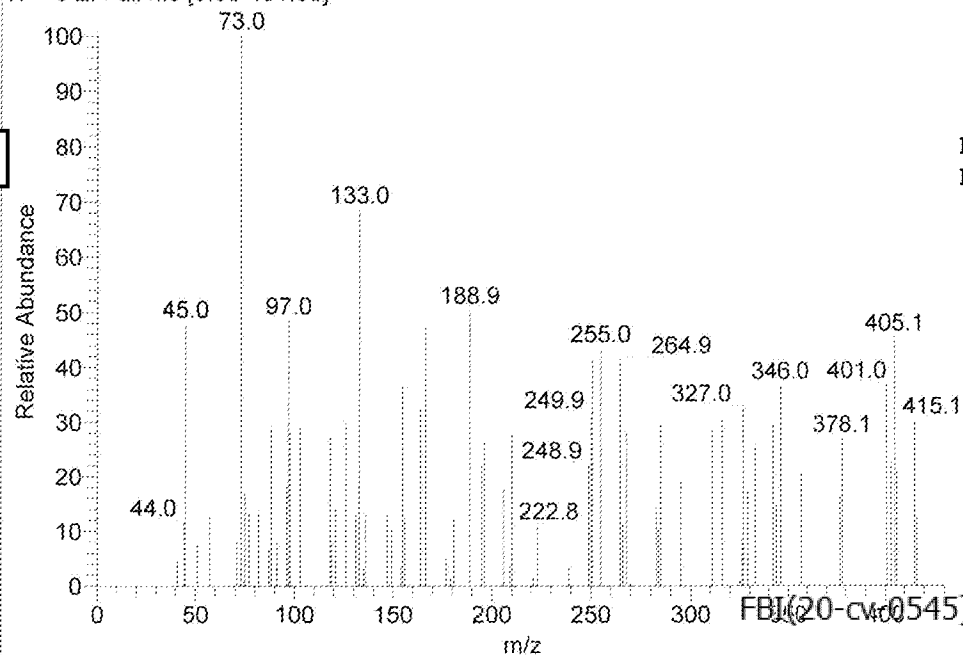
RT: 4.00 - 35.00



RT: 9.00 - 14.00 SM: 7B



08 #1107 RT: 10.51 AV: 1 SB: 2 10.86-11.01 NL: 3.72E2  
T: + c EI Full ms [0.00-431.00]



10/3/2017 11:12:00 AM

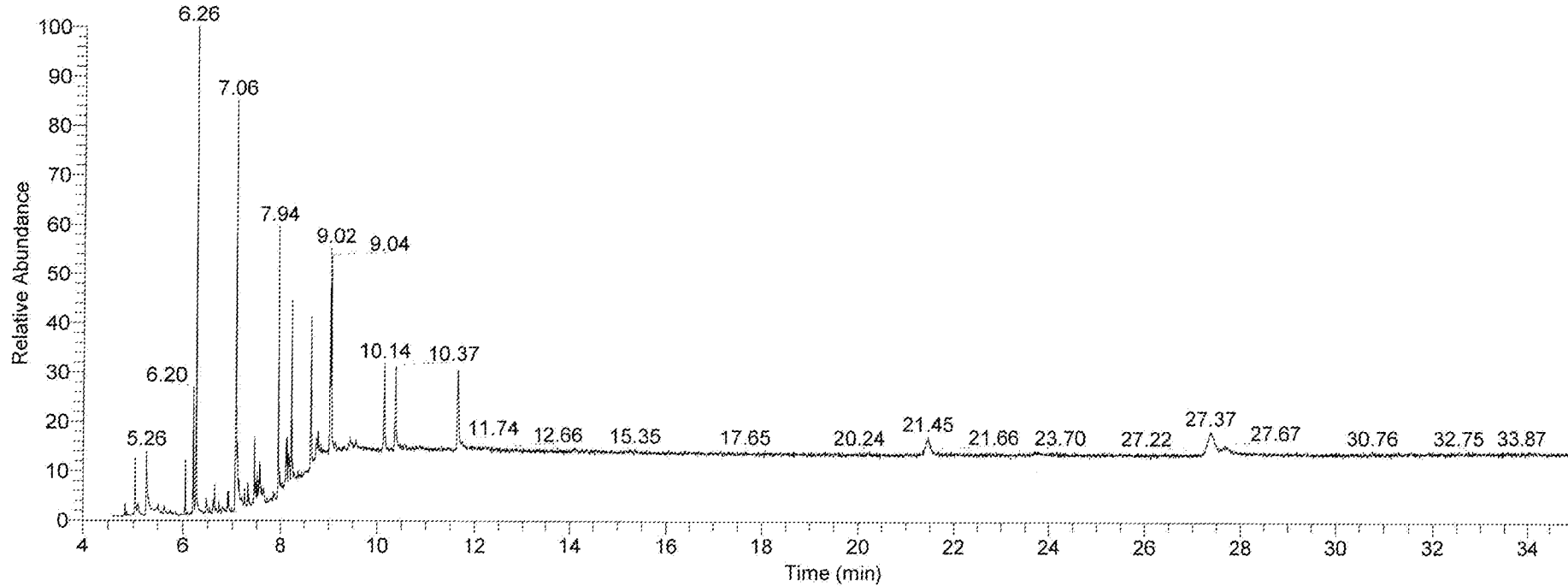
pos ctrl blood

b6 -1

b7C -1

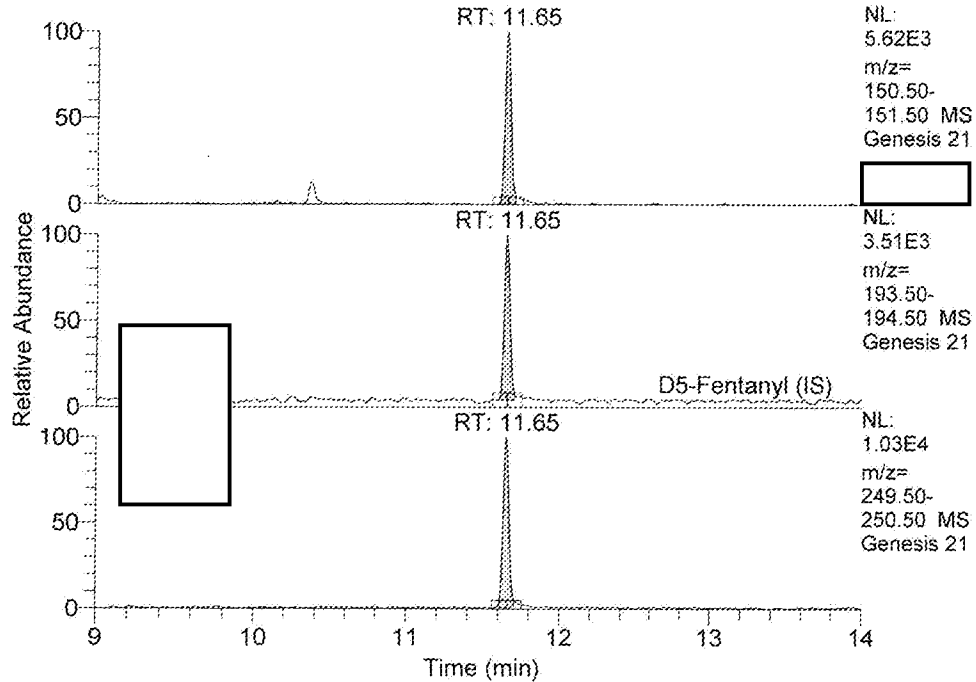
b7E -2

RT: 4.00 - 35.00

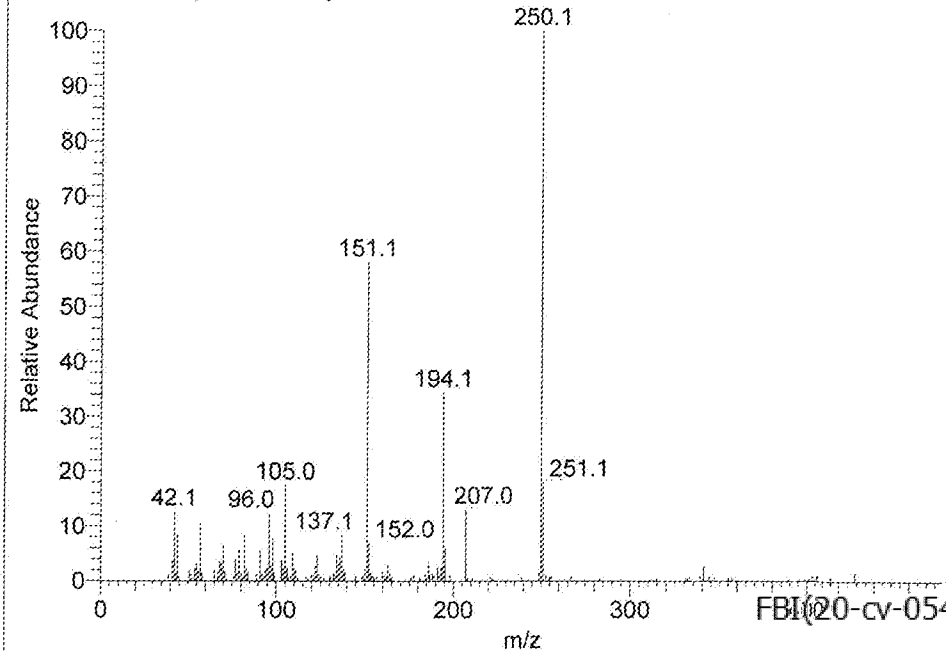


NL:  
4.26E5  
TIC MS 21

RT: 9.00 - 14.00 SM: 7B



21 #1320 RT: 11.65 AV: 1 SB: 7 10.86-11.01 NL: 1.38E4  
T: + c EI Full ms [0.00-479.00]



b6 -1

b7C -1

FBI(20-cv-0545)-1379

10/3/2017 11:12:00 AM

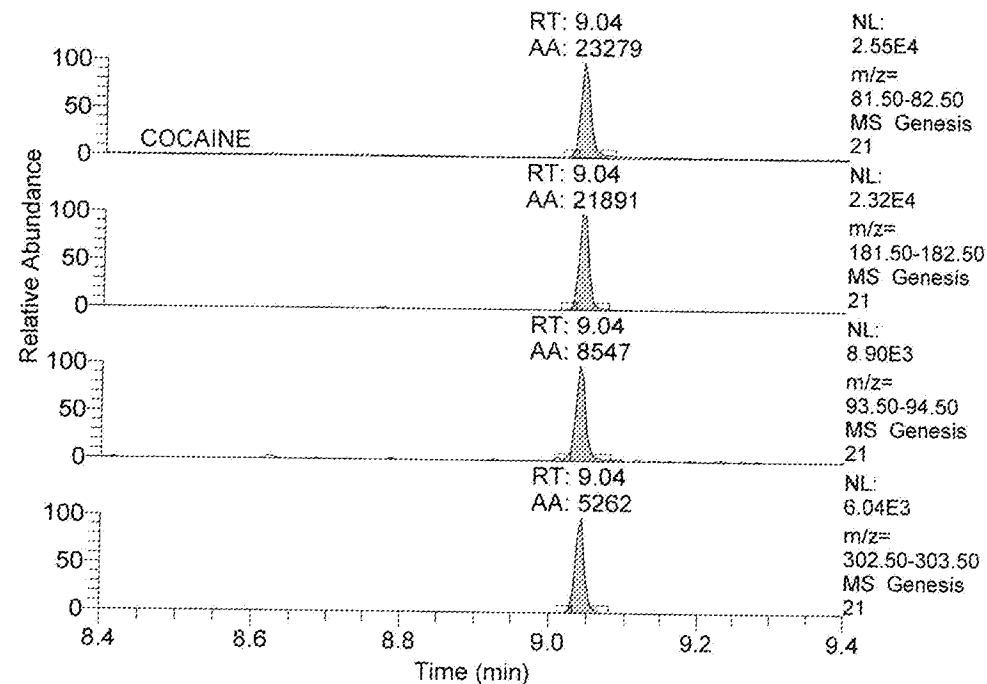
pos ctrl blood

b6 -1

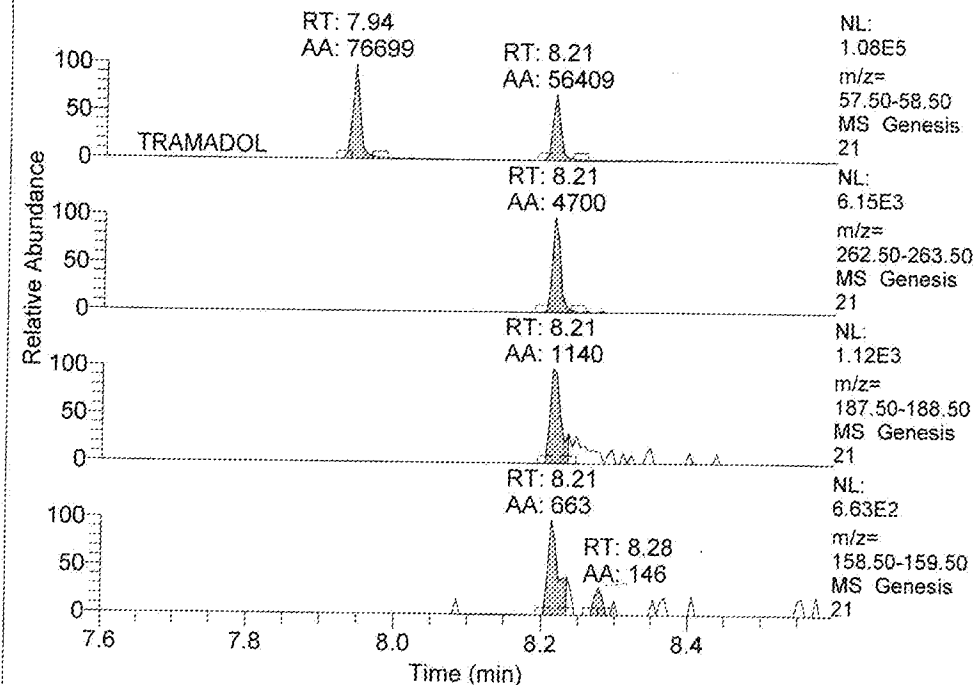
b7C -1

b7E -2

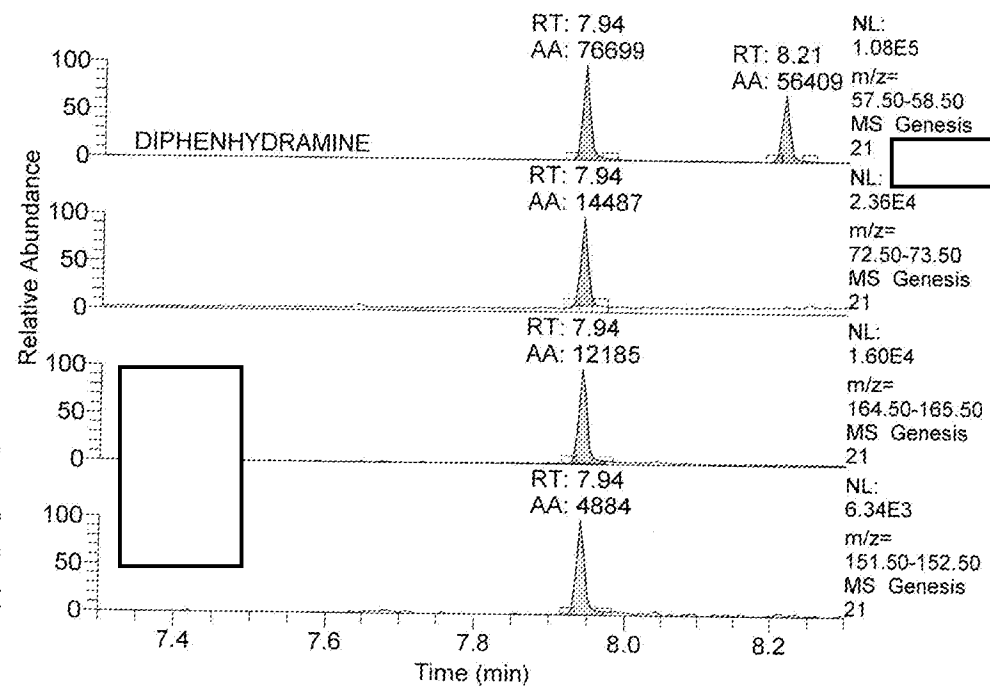
RT: 8.40 - 9.40



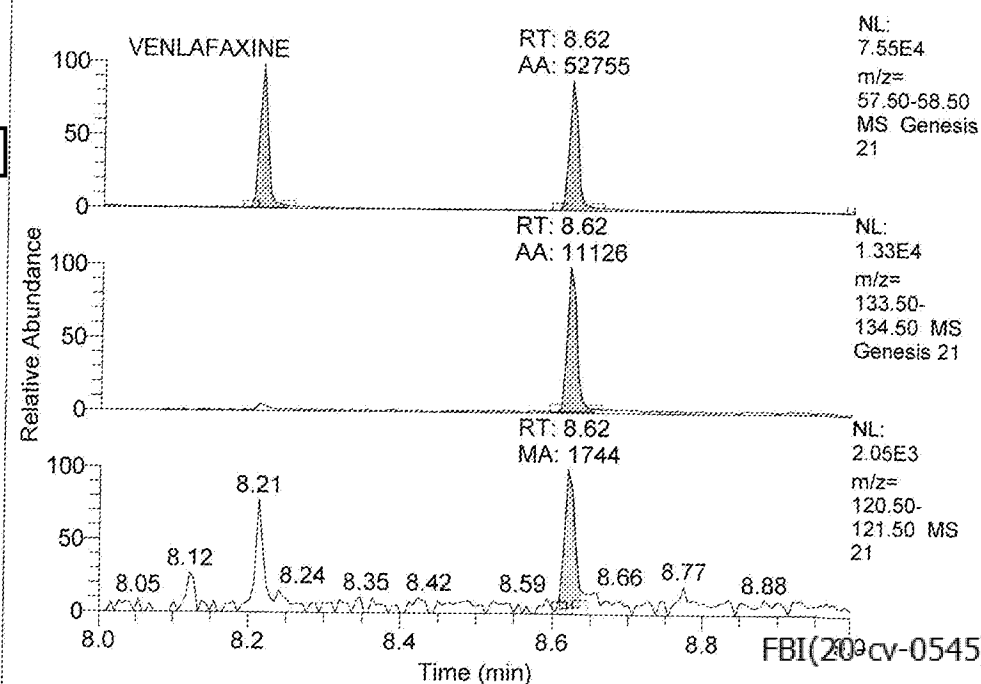
RT: 7.60 - 8.60



RT: 7.30 - 8.30



RT: 8.00 - 9.00



b6 -1

b7C -1

FBI(20-cv-0545)-1380

10/3/2017 11:12:00 AM

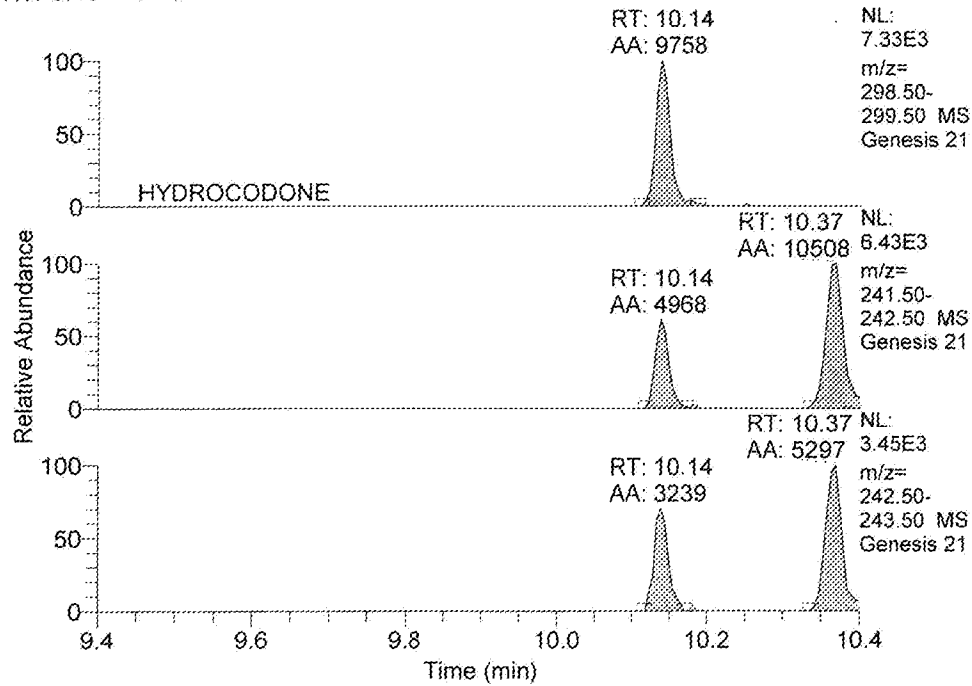
pos ctrl blood

b6 -1

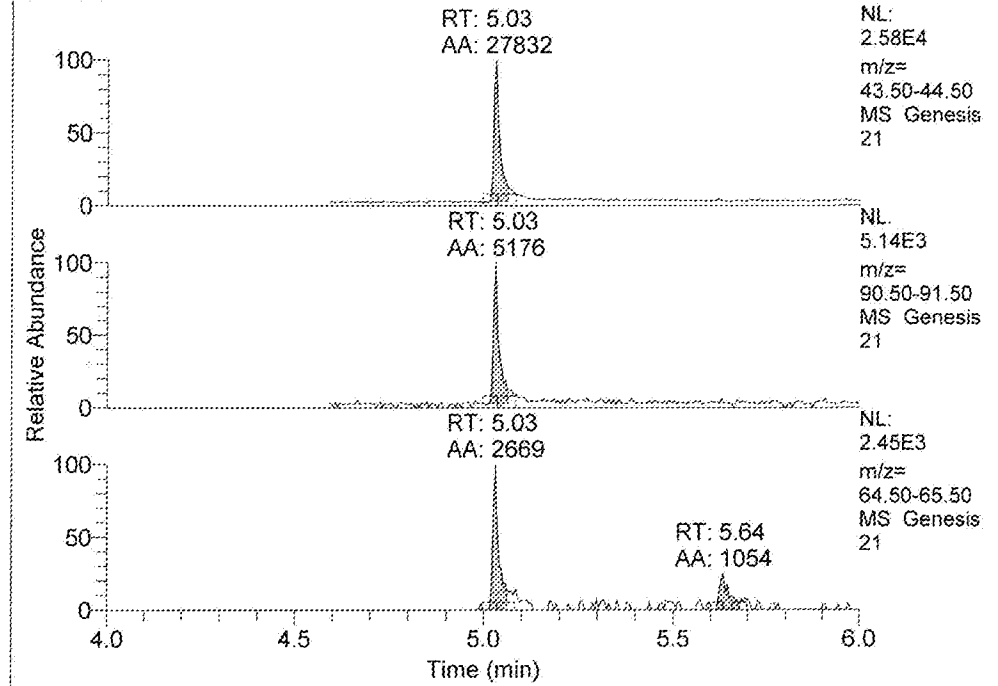
b7C -1

b7E -2

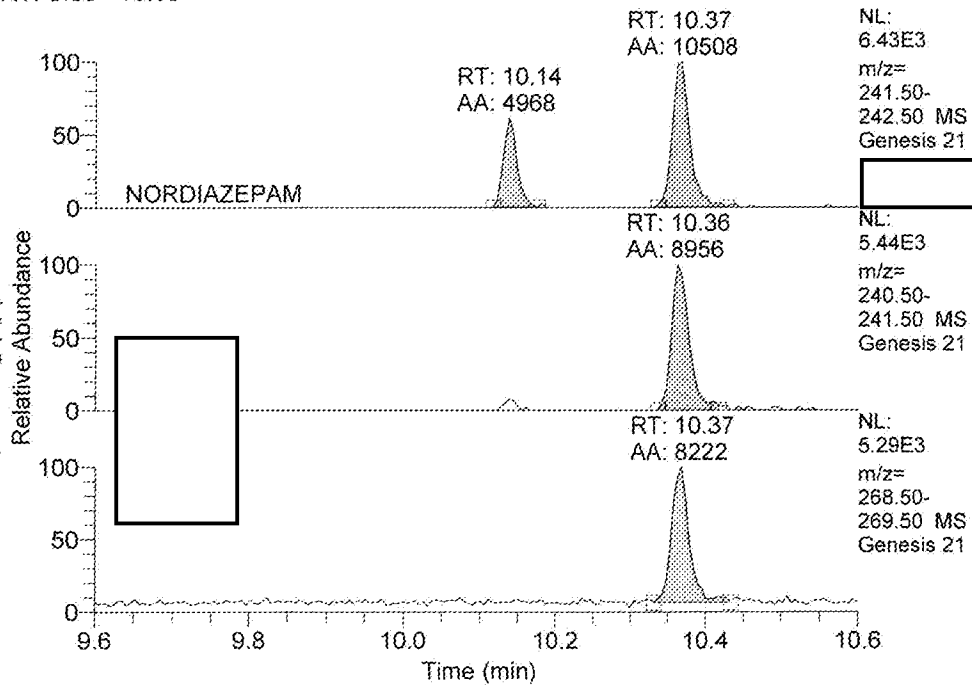
RT: 9.40 - 10.40



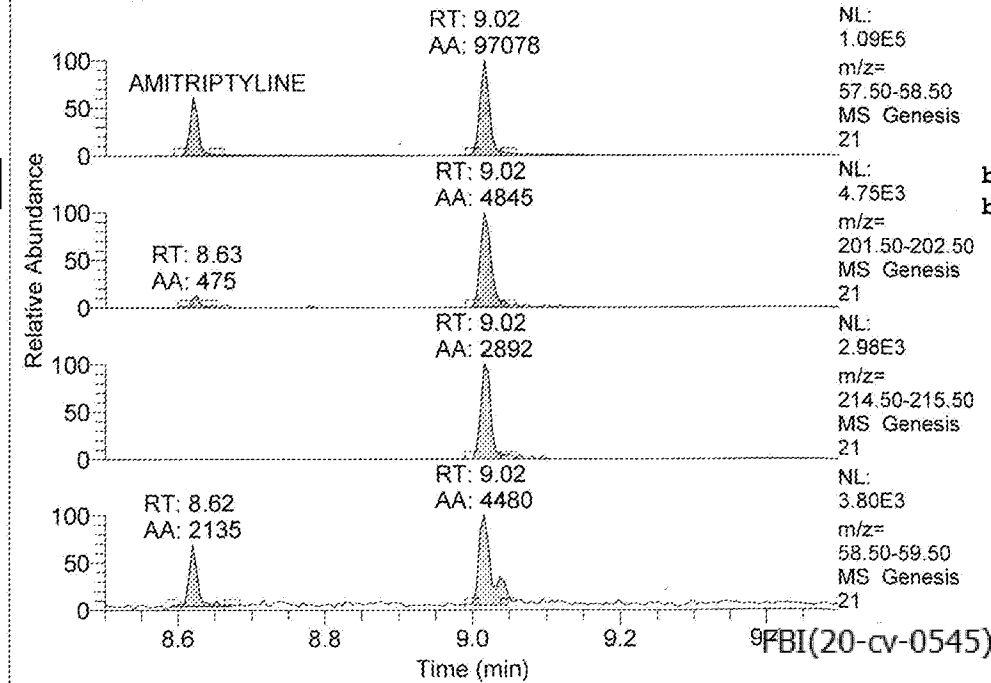
RT: 4.00 - 6.00



RT: 9.60 - 10.60



RT: 8.50 - 9.50



b6 -1

b7C -1

9FBI(20-cv-0545)-1381

10/3/2017 11:11:45 AM

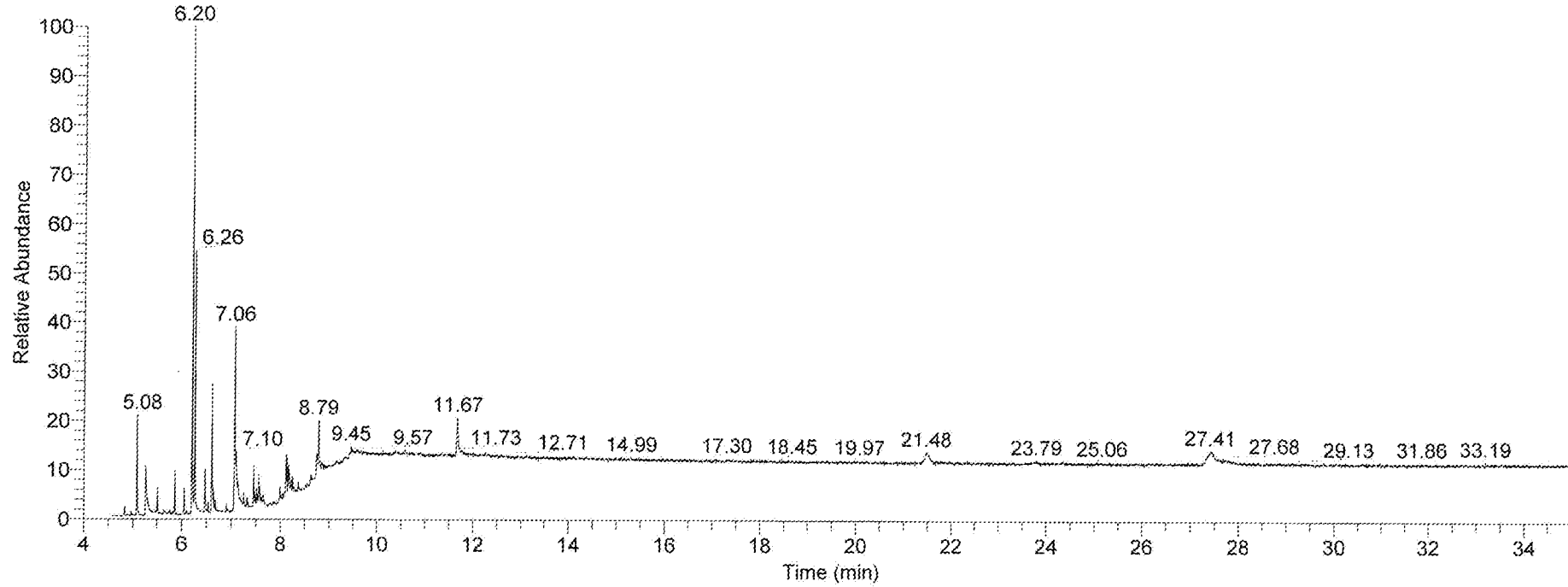
neg ctrl blood

b6 -1

b7C -1

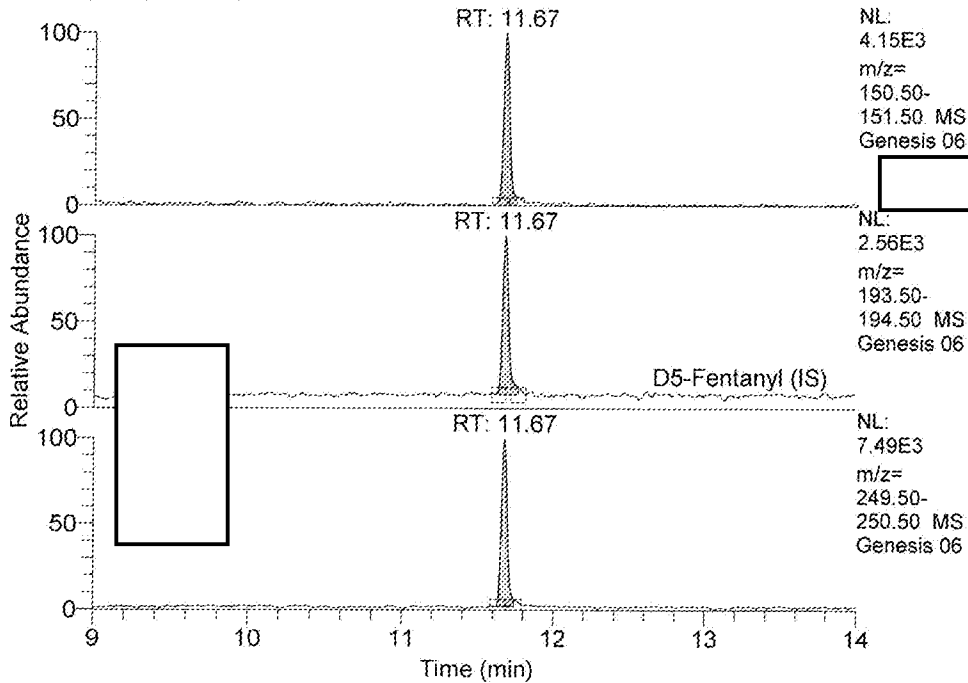
b7E -2

RT: 4.00 - 35.00

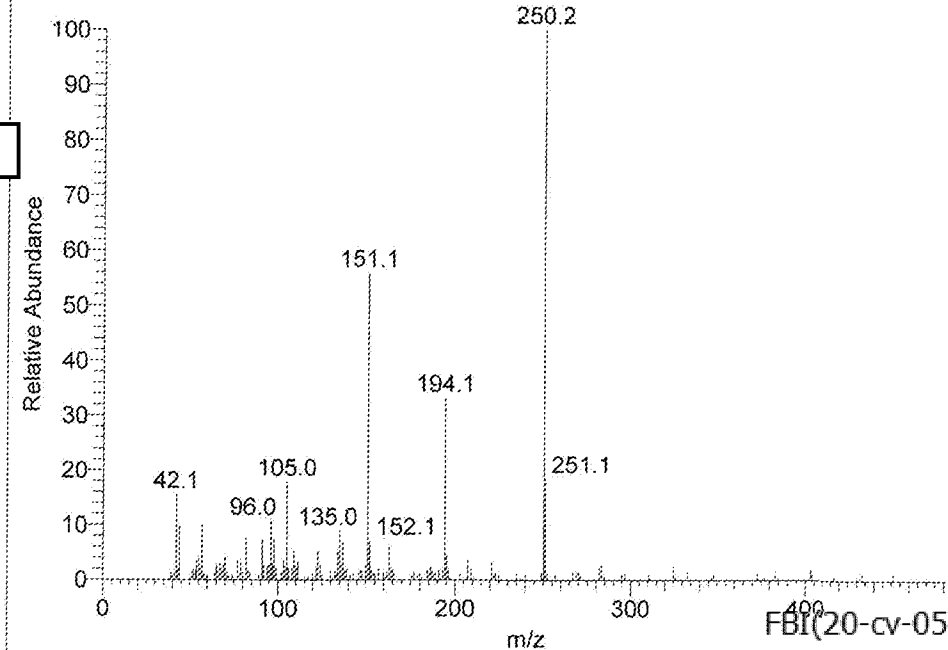


NL:  
6.72E5  
TIC MS 06

RT: 9.00 - 14.00 SM: 7B



06 #1325 RT: 11.67 AV: 1 SB: 2 10.86-11.01 NL: 1.04E4  
T: + c EI Full ms [0.00-479.00]



b6 -1

b7C -1

FBI(20-cv-0545)-1382

10/3/2017 11:11:45 AM

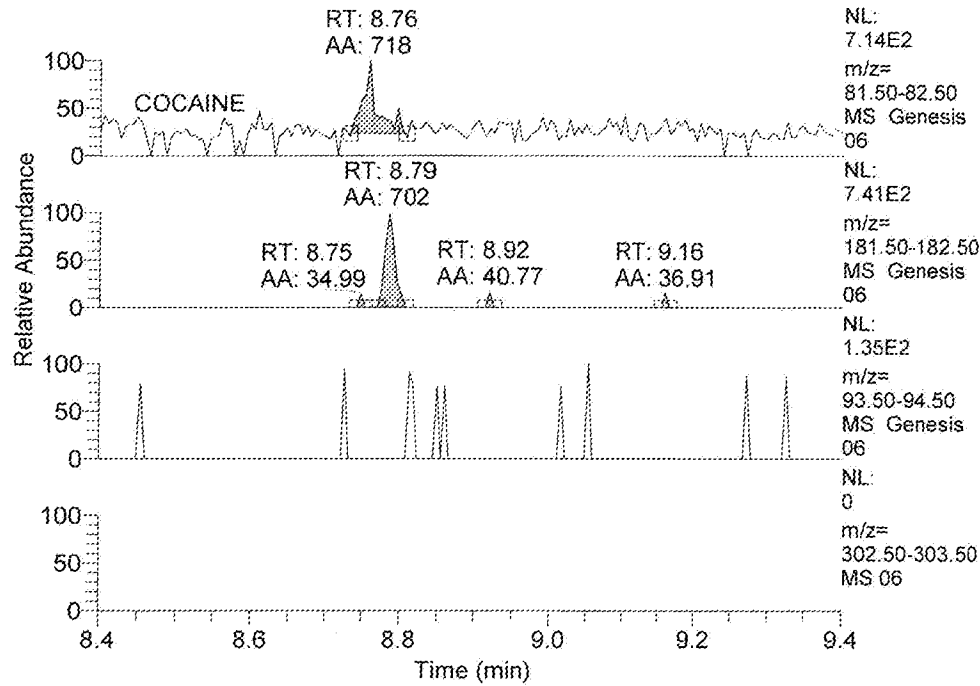
neg ctrl blood

b6 -1

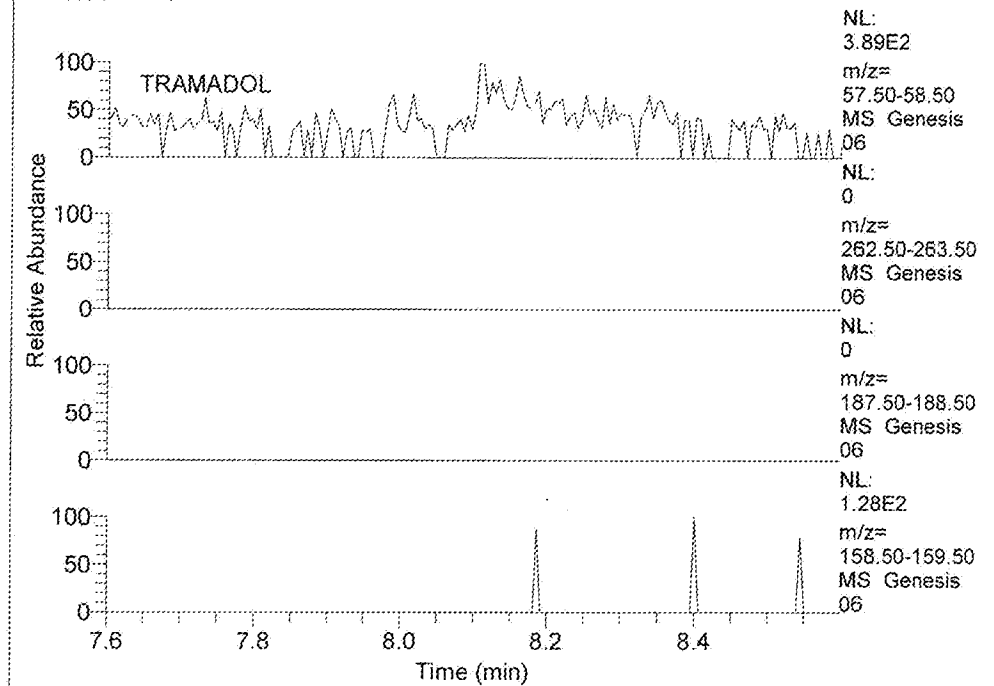
b7C -1

b7E -2

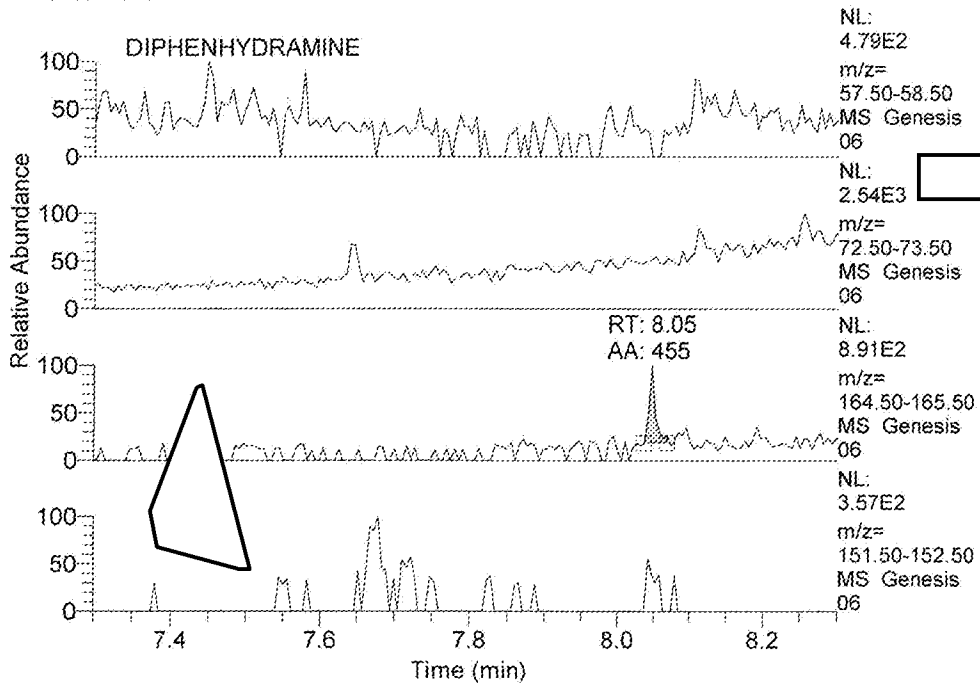
RT: 8.40 - 9.40



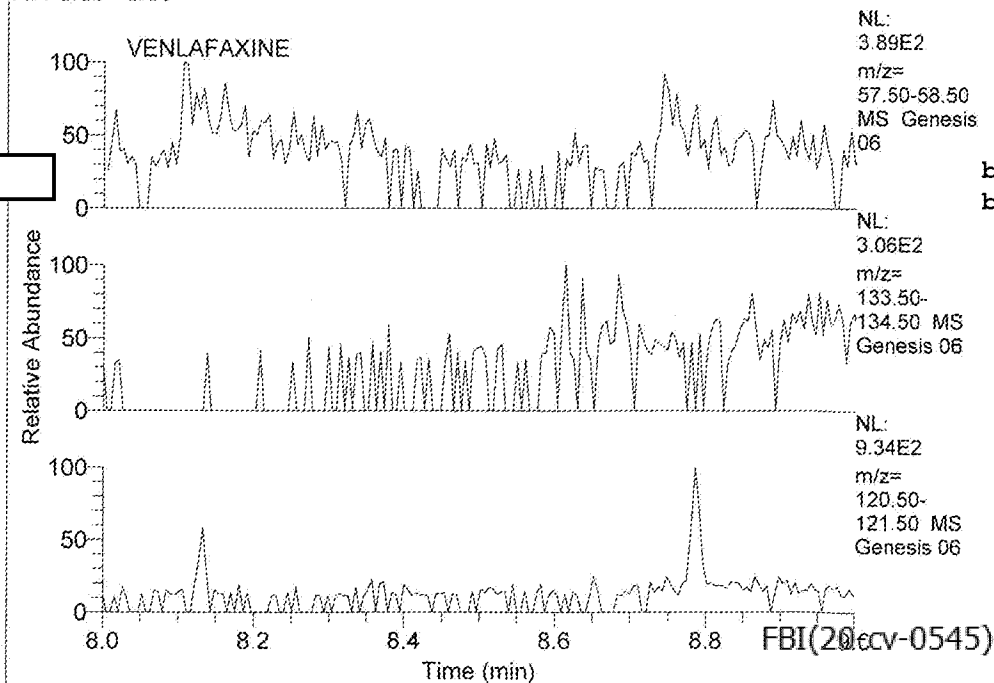
RT: 7.60 - 8.60



RT: 7.30 - 8.30



RT: 8.00 - 9.00



b6 -1

b7C -1

FBI(20-cv-0545)-1383

2017-06-09 10:27-2017

10/3/2017 11:11:45 AM

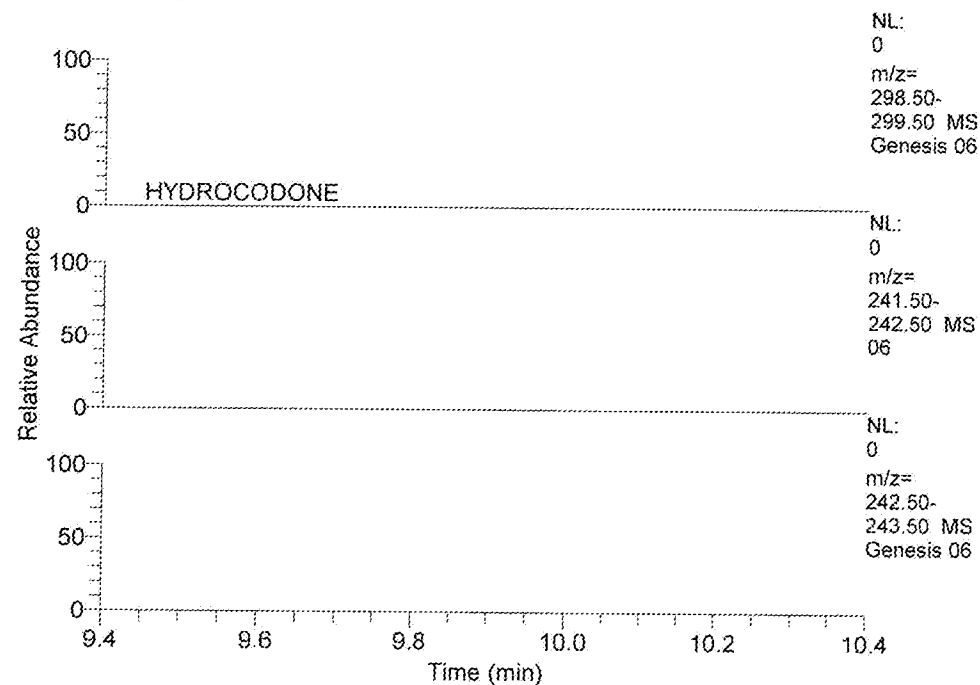
neg ctrl blood

b6 -1

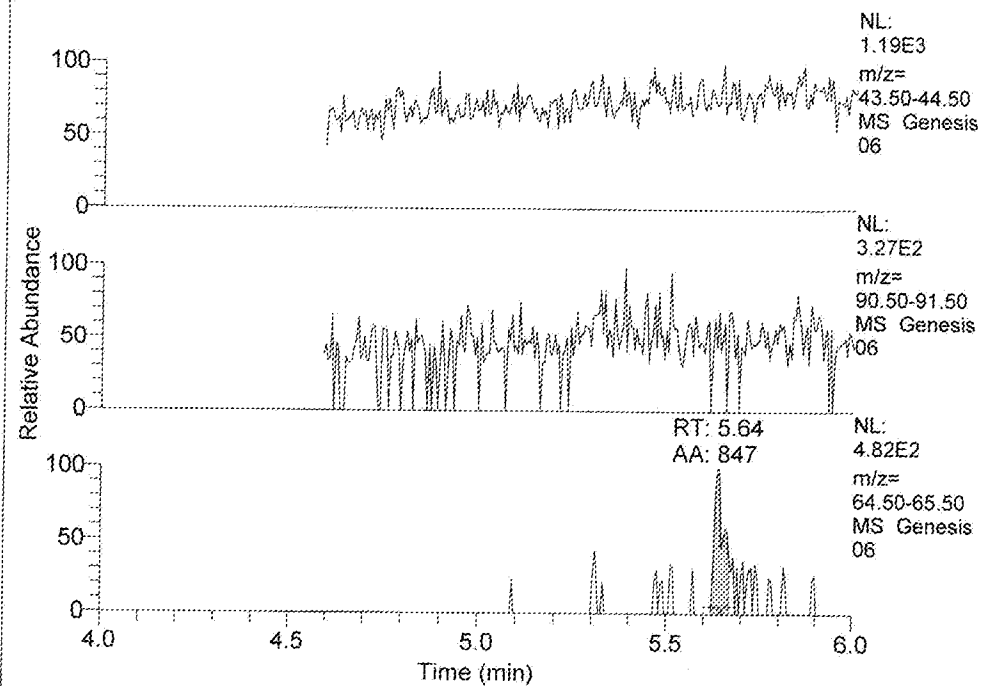
b7C -1

b7E -2

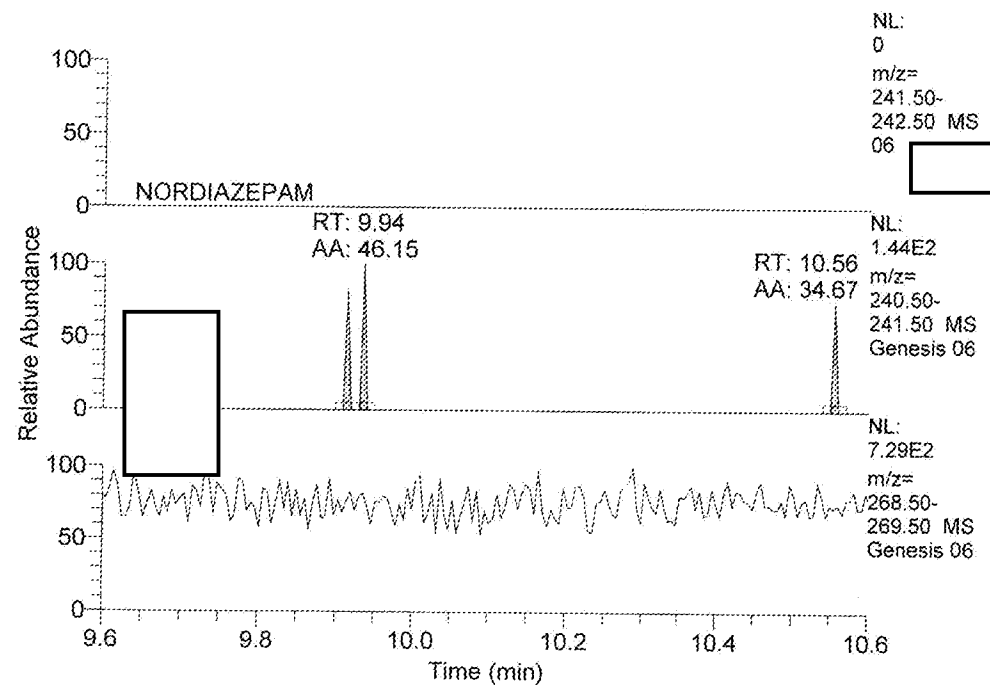
RT: 9.40 - 10.40



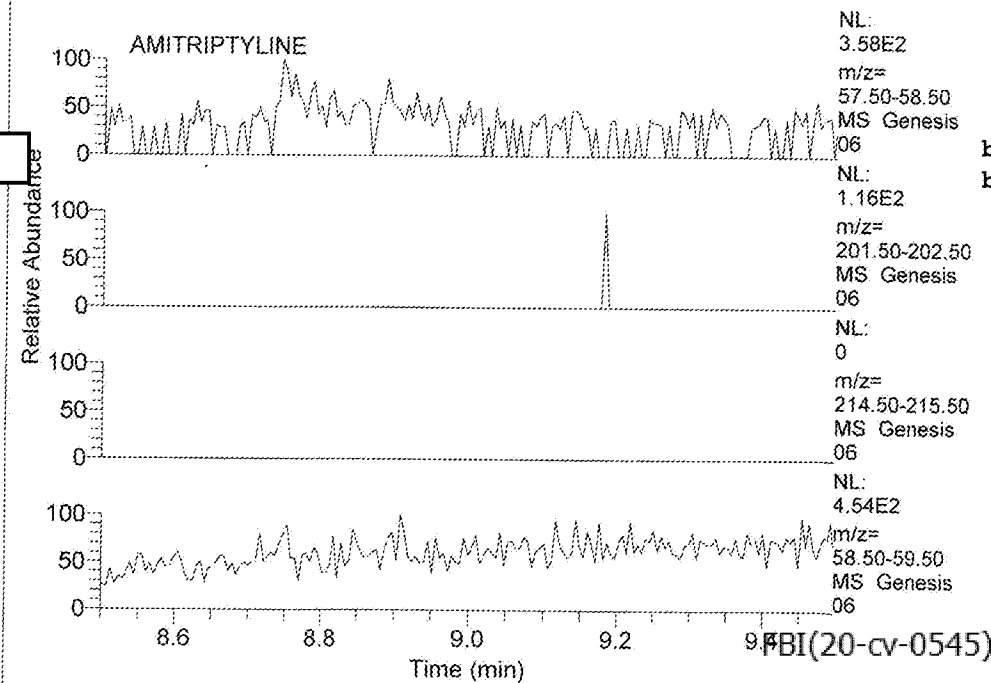
RT: 4.00 - 6.00



RT: 9.60 - 10.60



RT: 8.50 - 9.50



b6 -1

b7C -1

9 FBI(20-cv-0545)-1384

2017-06-06 10:27:20



10/3/2017 11:12:07 AM

2017-00469, 2, urine

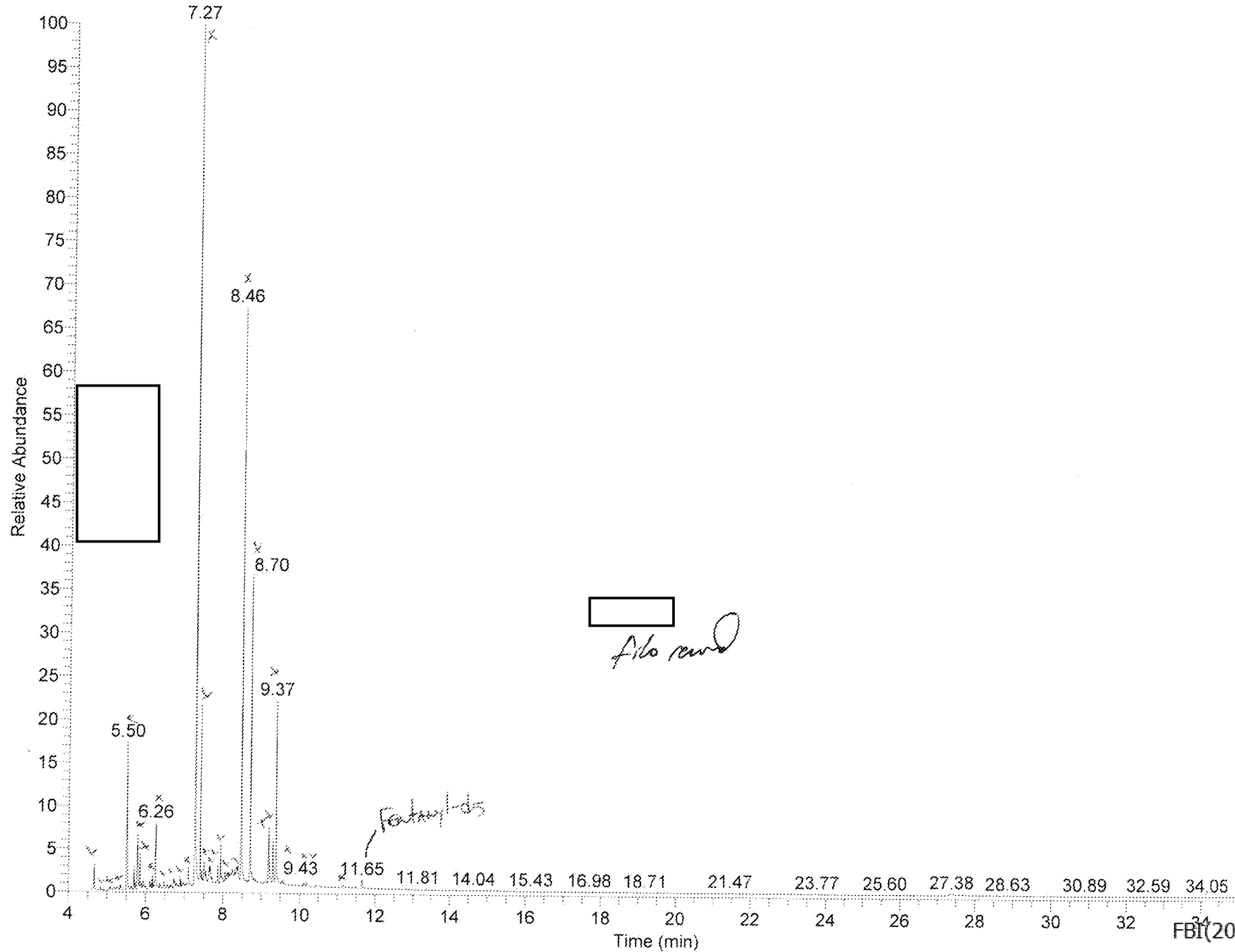
b6 -1

b7C -1

b7E -2

RT: 4.00 - 35.00

NL:  
9.95E6  
TIC MS 28



b6 -1

b7C -1

FBI(20-cv-0545)-1385

10/3/2017 11:12:07 AM

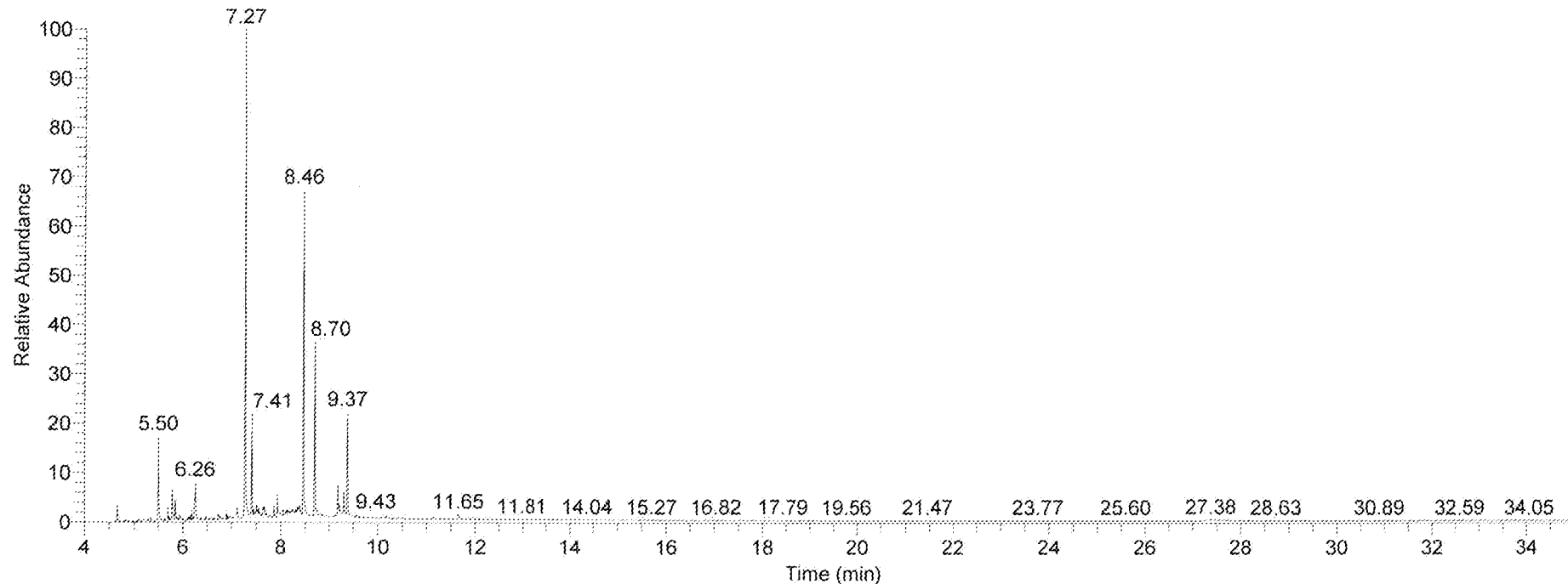
2017-00469, 2, urine

b6 -1

b7C -1

b7E -2

RT: 4.00 - 35.00

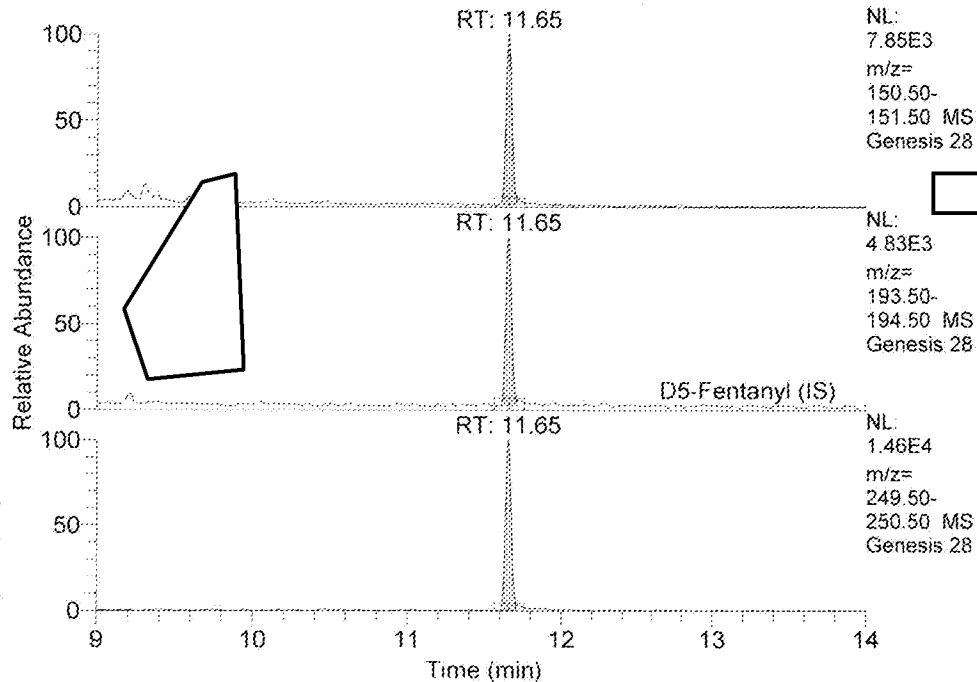


NL:

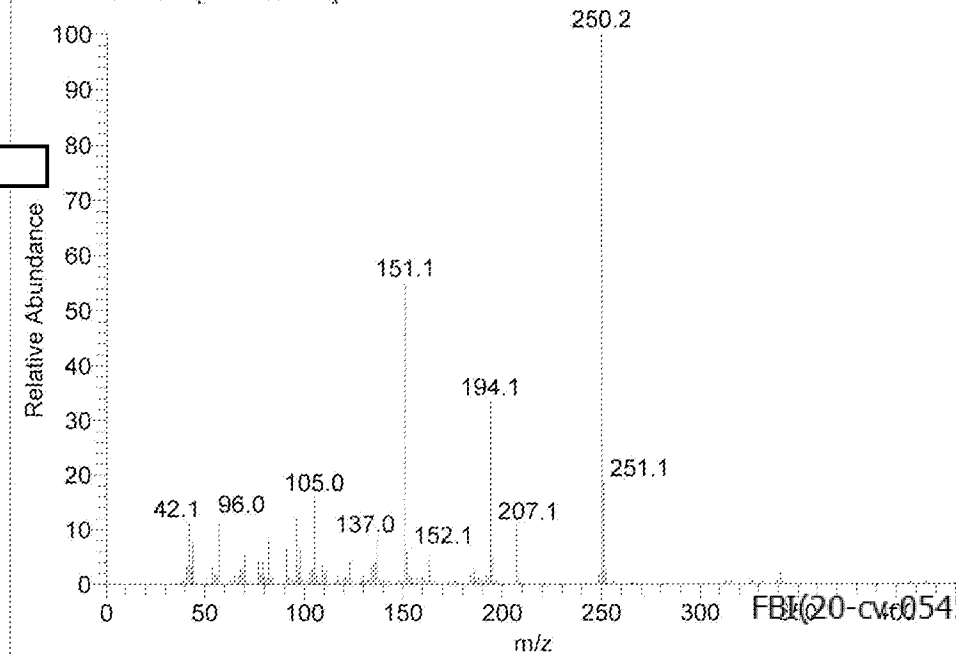
9.95E6

TIC MS 28

RT: 9.00 - 14.00 SM: 7B



28 #1320 RT: 11.65 AV: 1 SB: 11 10.86-11.01 NL: 1.85E4  
T: + c EI Full ms [0.00-431.00]

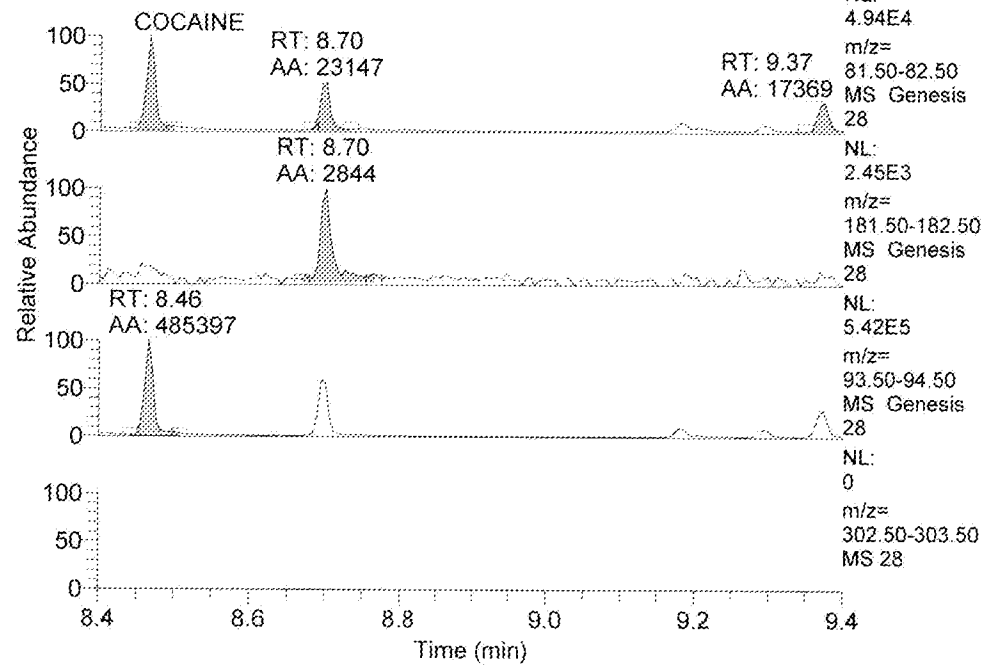


b6 -1

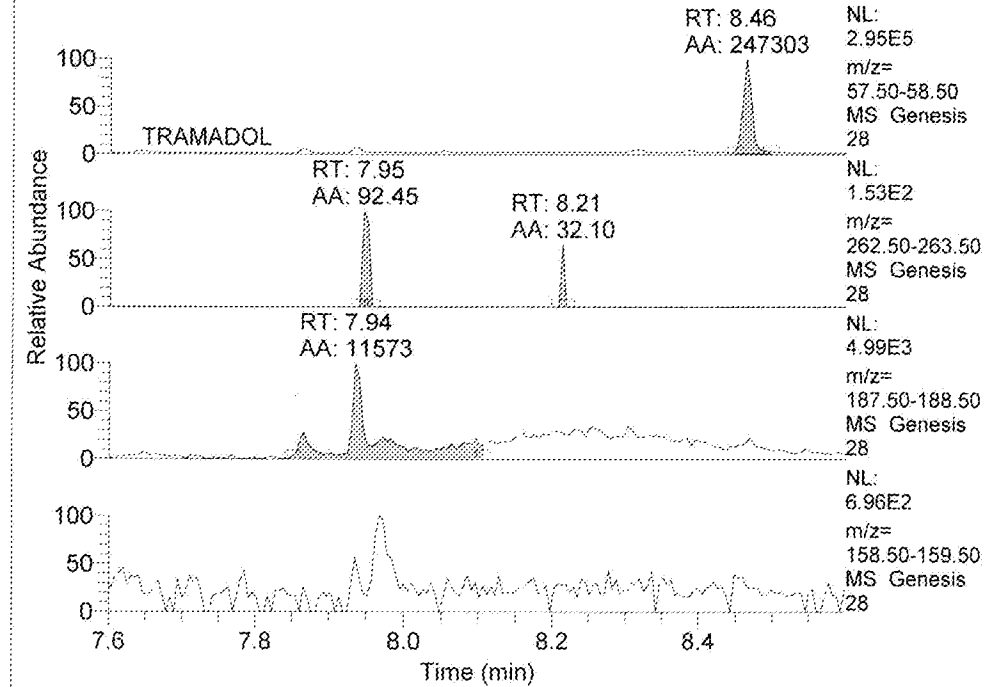
b7C -1

FBI(20-cv-0545)-1386

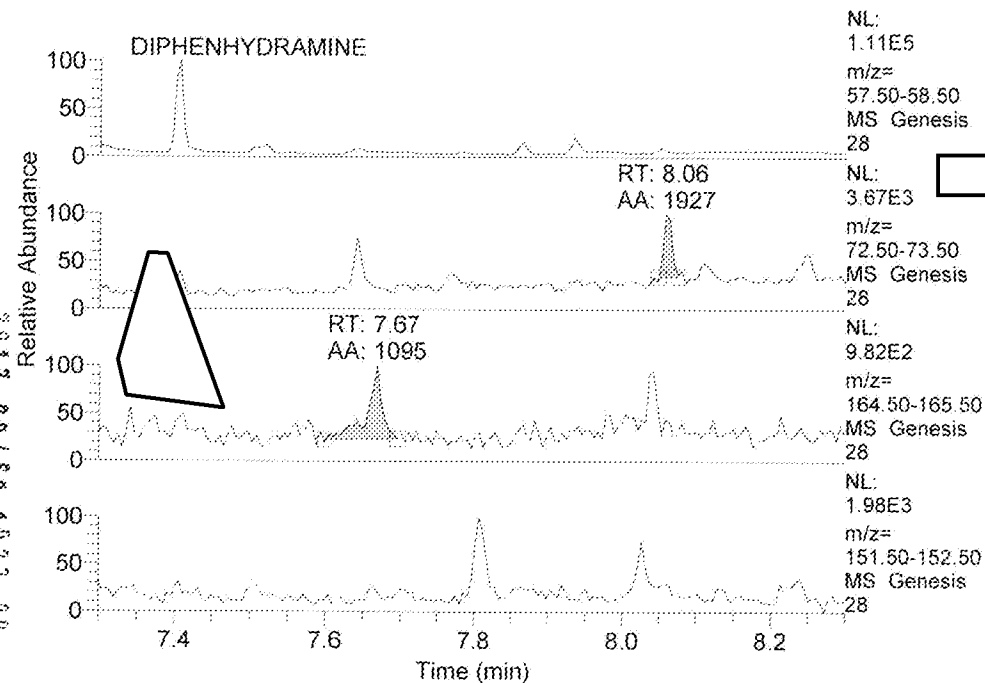
RT: 8.40 - 9.40



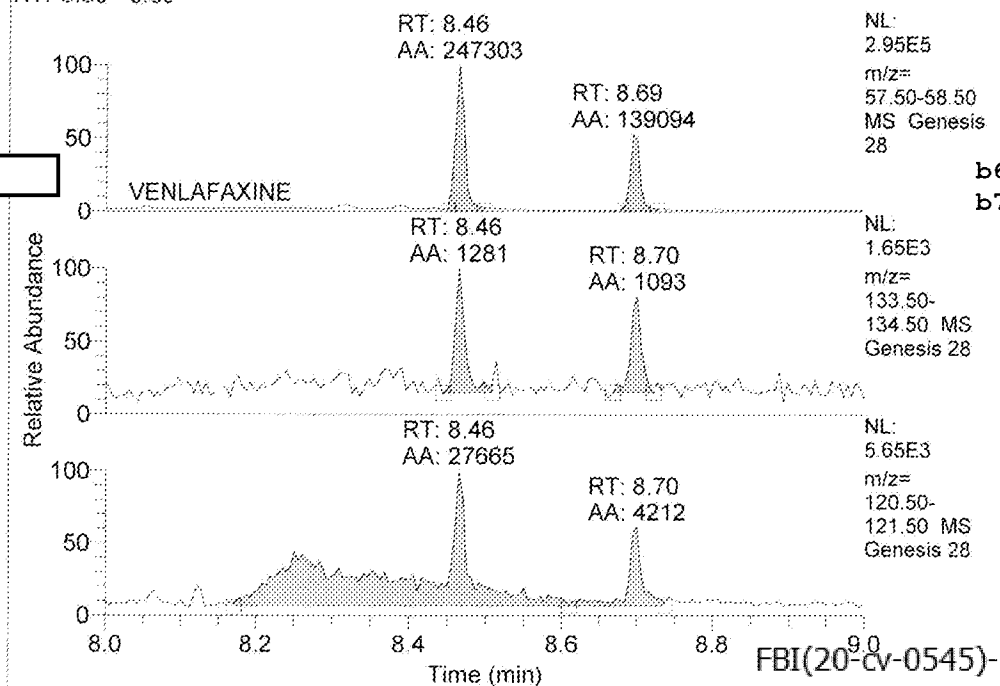
RT: 7.60 - 8.60



RT: 7.30 - 8.30



RT: 8.00 - 9.00



10/3/2017 11:12:07 AM

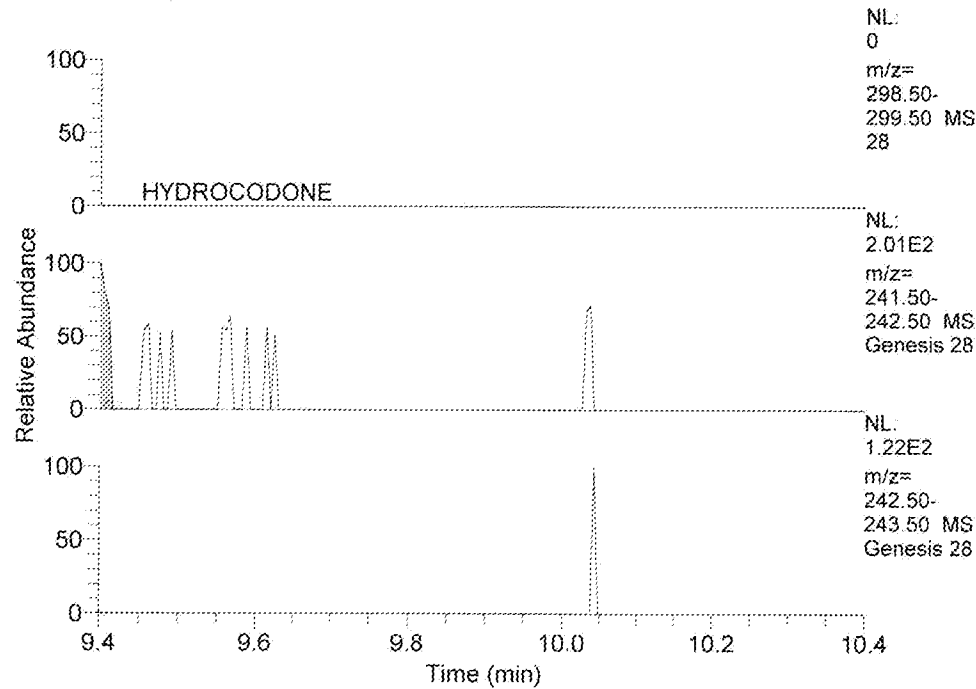
2017-00469, 2, urine

b6 -1

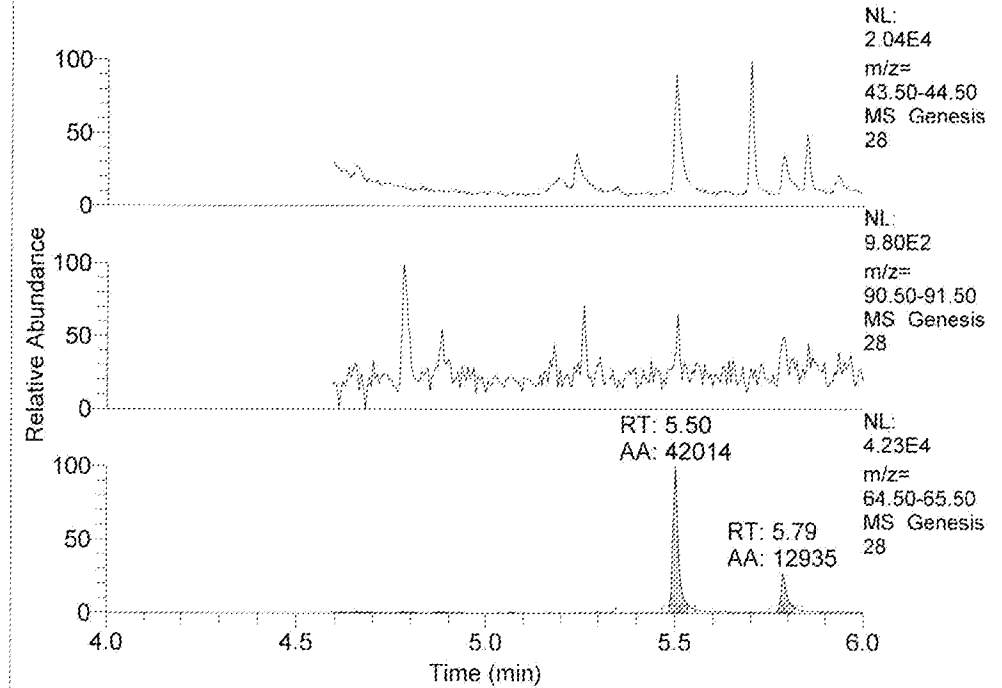
b7C -1

b7E -2

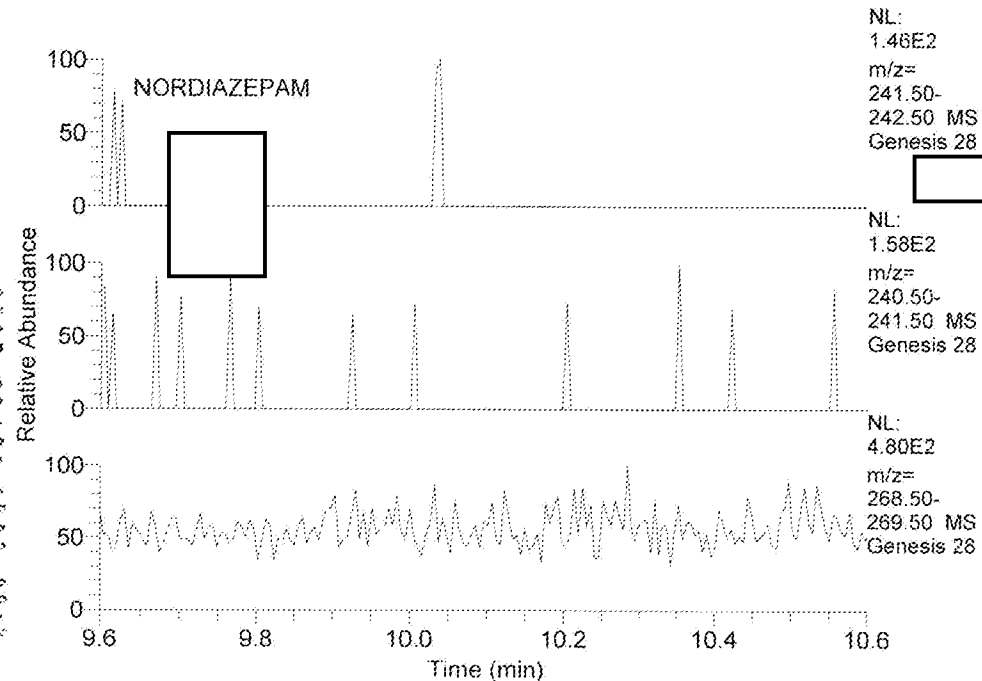
RT: 9.40 - 10.40



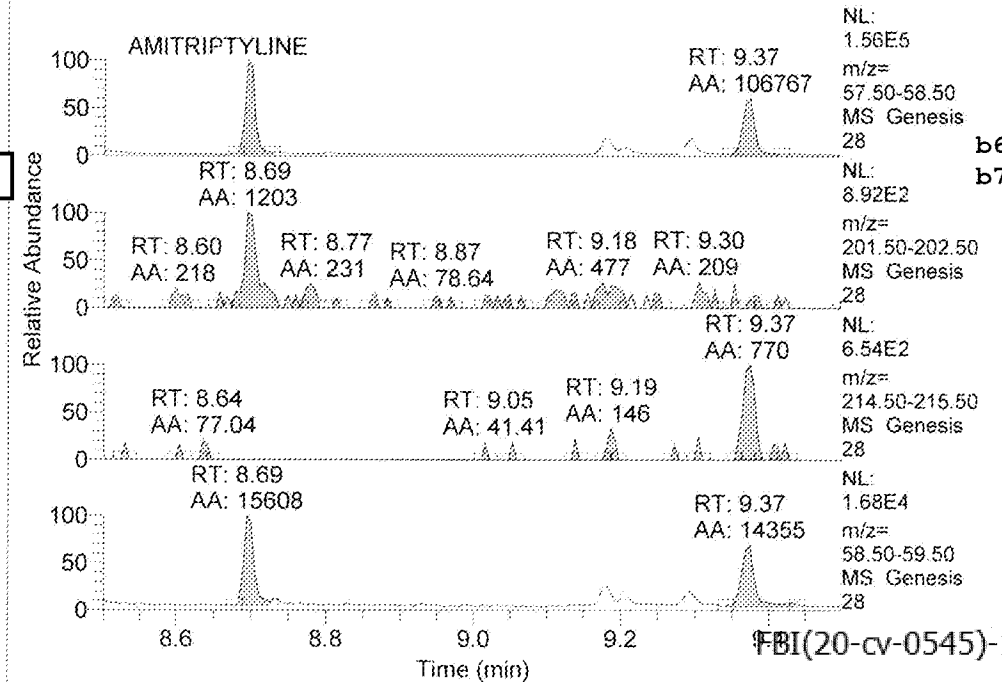
RT: 4.00 - 6.00



RT: 9.60 - 10.60



RT: 8.50 - 9.50



b6 -1

b7C -1

FBI(20-cv-0545)-1388

10/3/2017 11:12:05 AM

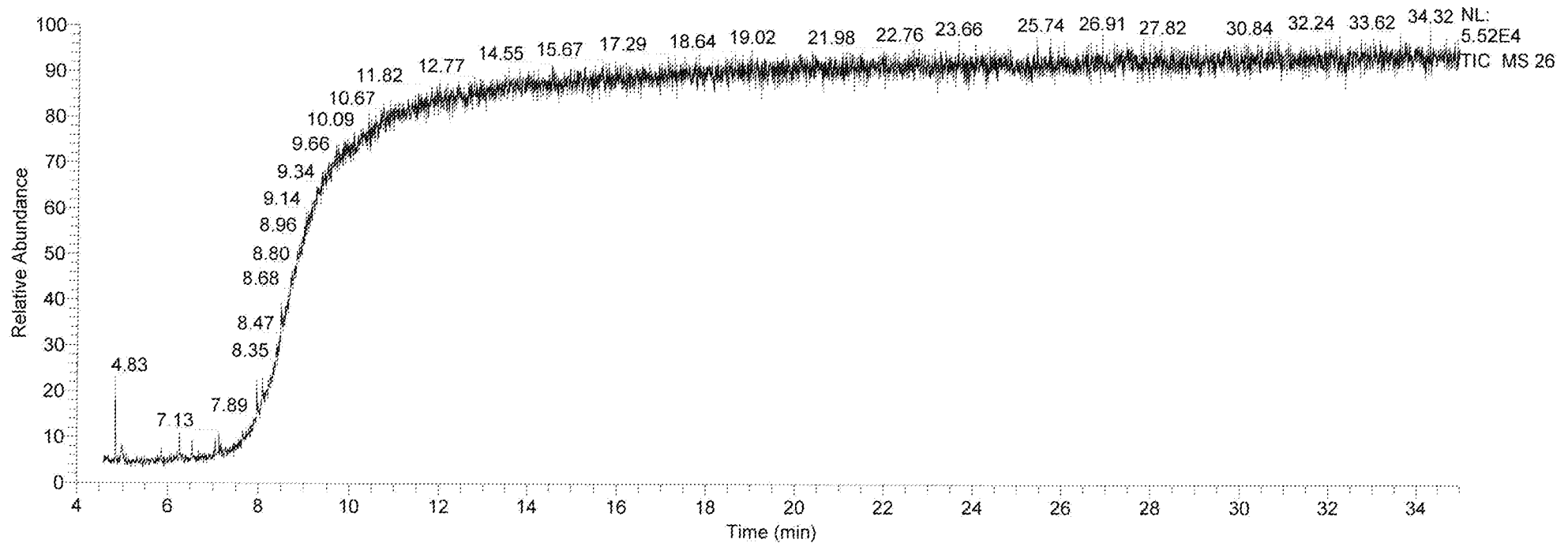
solvent blank

b6 -1

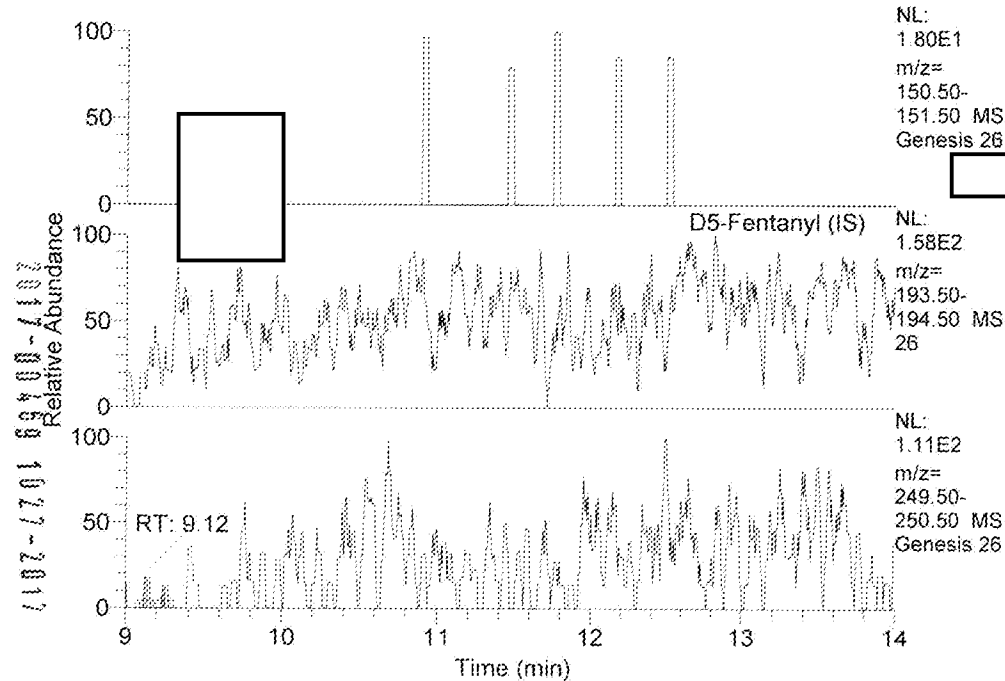
b7C -1

b7E -2

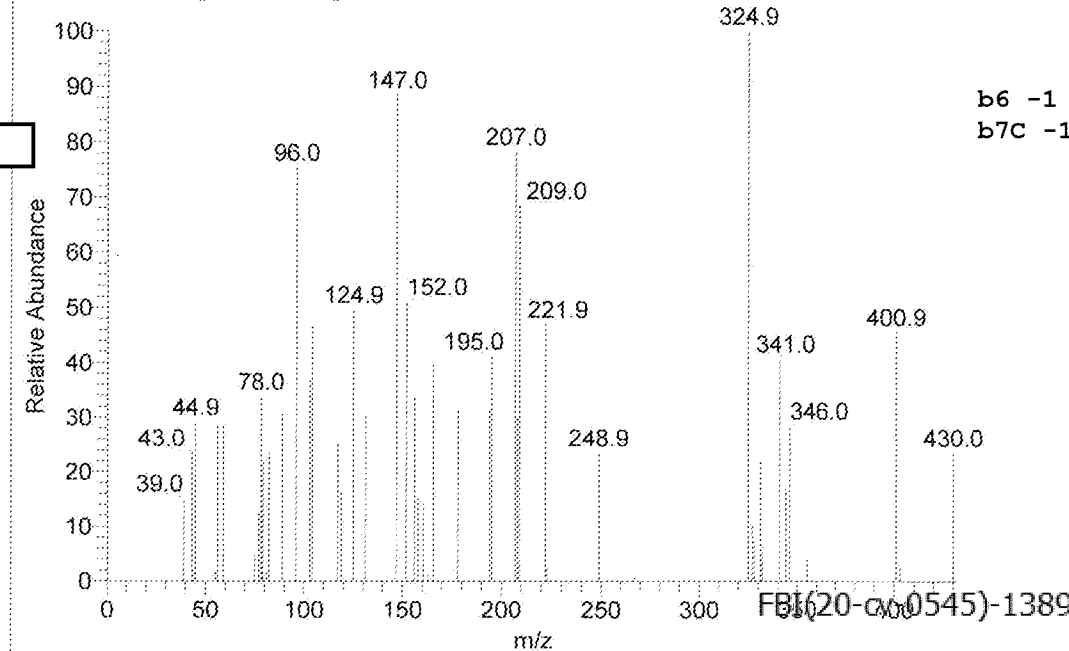
RT: 4.00 - 35.00



RT: 9.00 - 14.00 SM: 7B



26 #1107 RT: 10.51 AV: 1 SB: 13 10.86-11.01 NL: 2.17E2  
T: + c E1 Full ms [0.00-432.00]



10/3/2017 11:12:09 AM

2017-00469, 5, urine

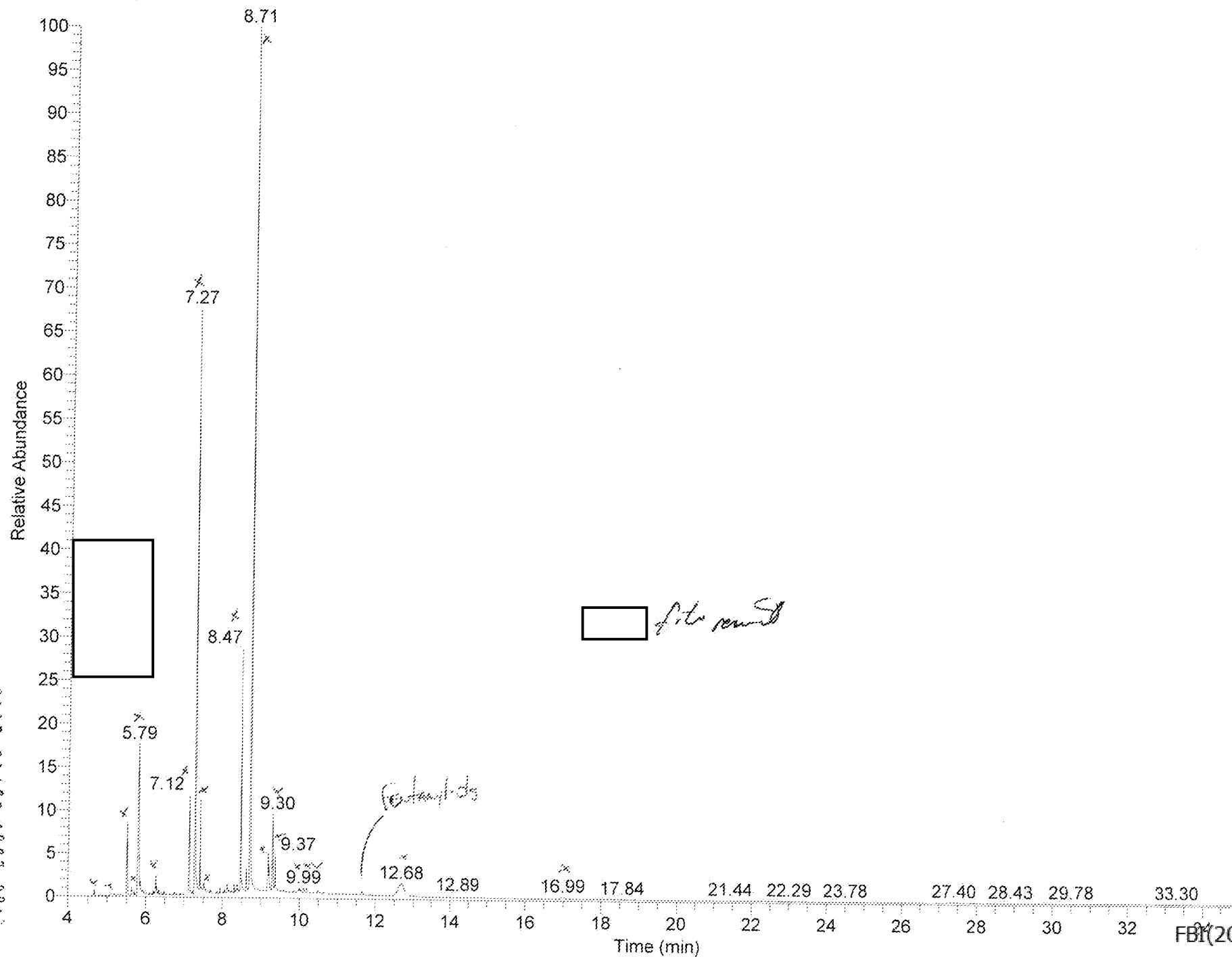
b6 -1

b7C -1

b7E -2

RT: 4.00 - 35.00

NL:  
2.71E7  
TIC MS 30



b6 -1

b7C -1

2017-00469 1027-2017

FBI(20-cv-0545)-1390

10/3/2017 11:12:09 AM

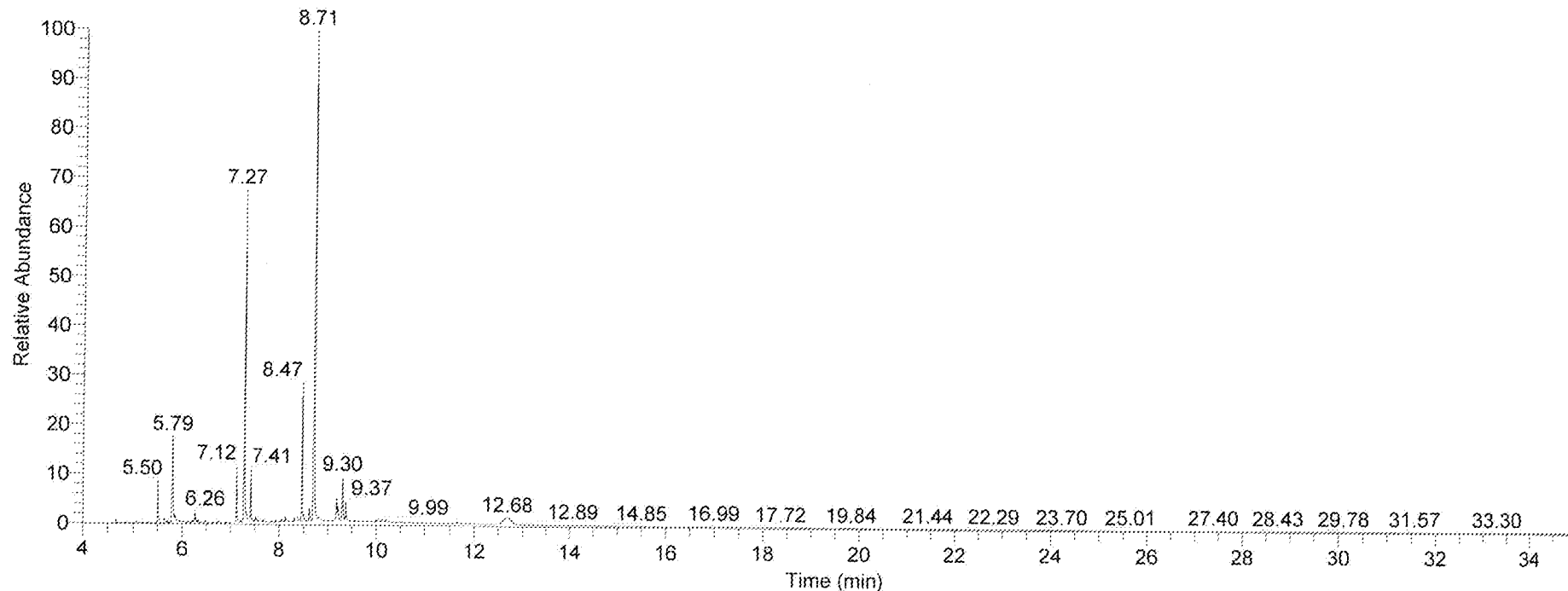
2017-00469, 5, urine

b6 -1

b7C -1

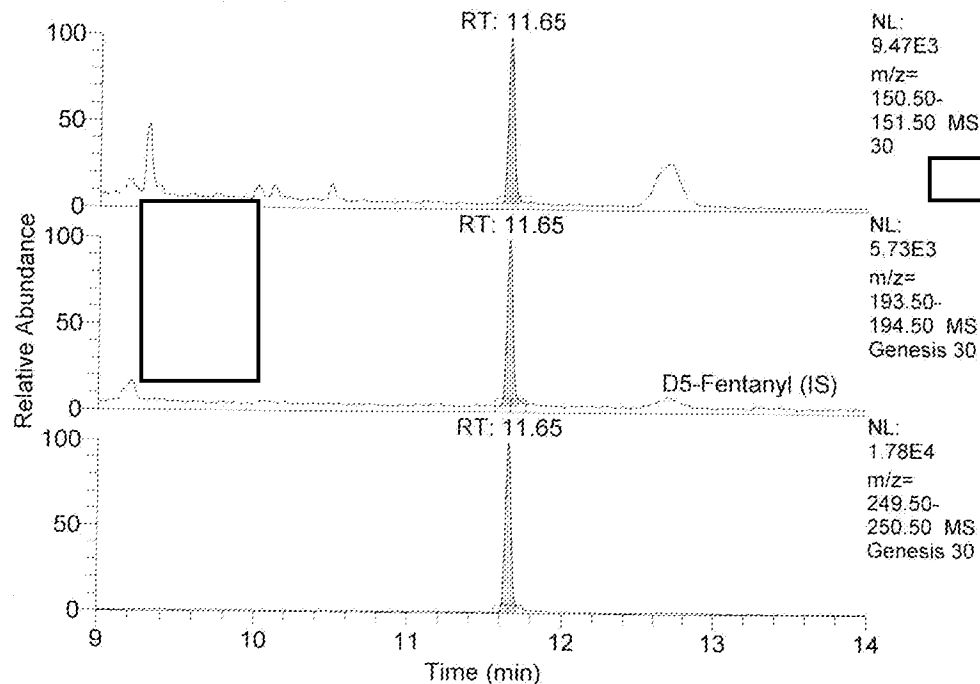
b7E -2

RT: 4.00 - 35.00

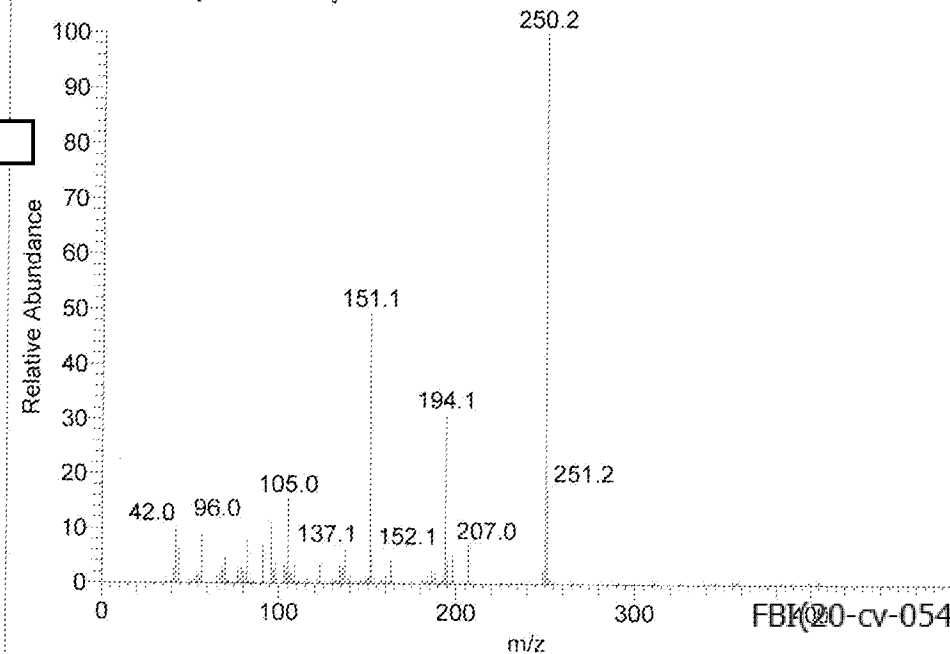


NL:  
2.71E7  
TIC MS 30

RT: 9.00 - 14.00 SM: 76



30 #1321 RT: 11.65 AV: 1 SB: 5 10.86-11.01 NL: 2 50E4  
T: + c EI Full ms [0.00-479.00]



b6 -1

b7C -1

FBI(20-cv-0545)-1391

10/3/2017 11:12:09 AM

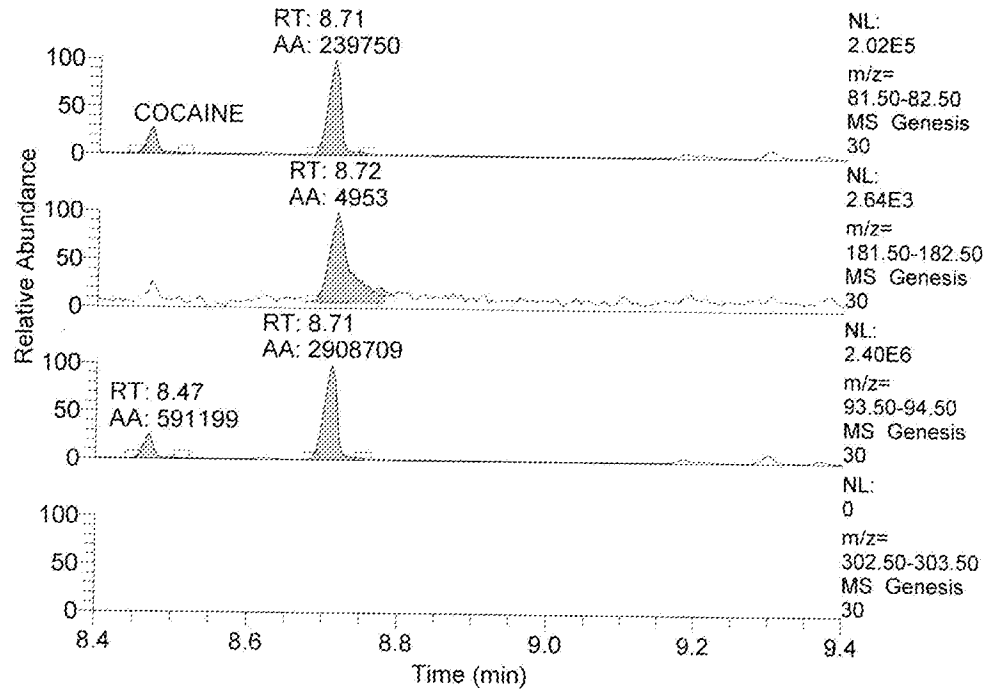
2017-00469, 5, urine

b6 -1

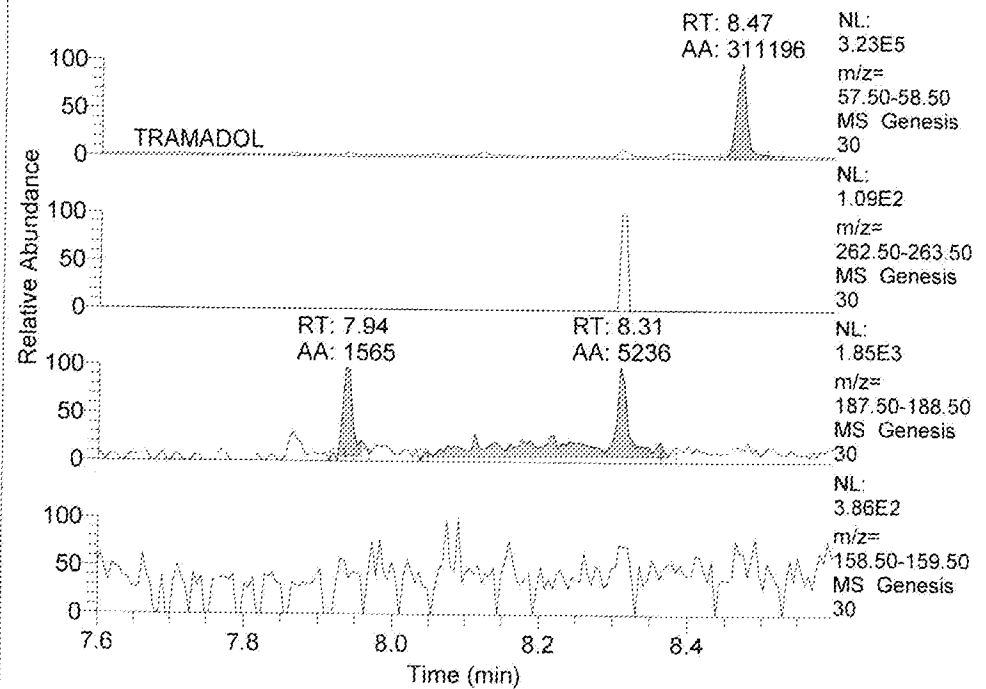
b7C -1

b7E -2

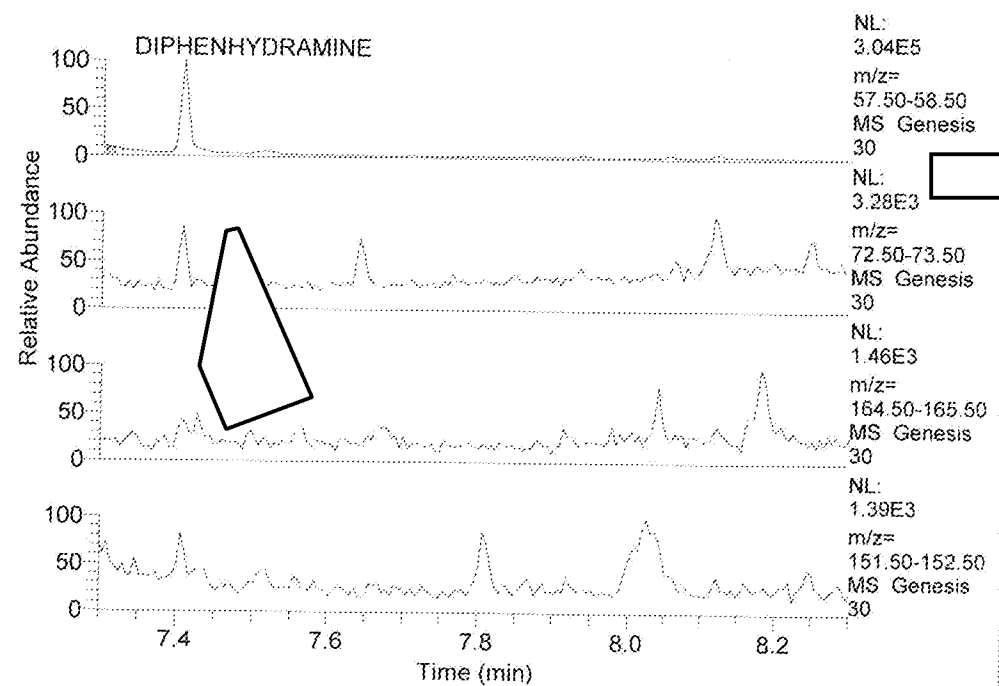
RT: 8.40 - 9.40



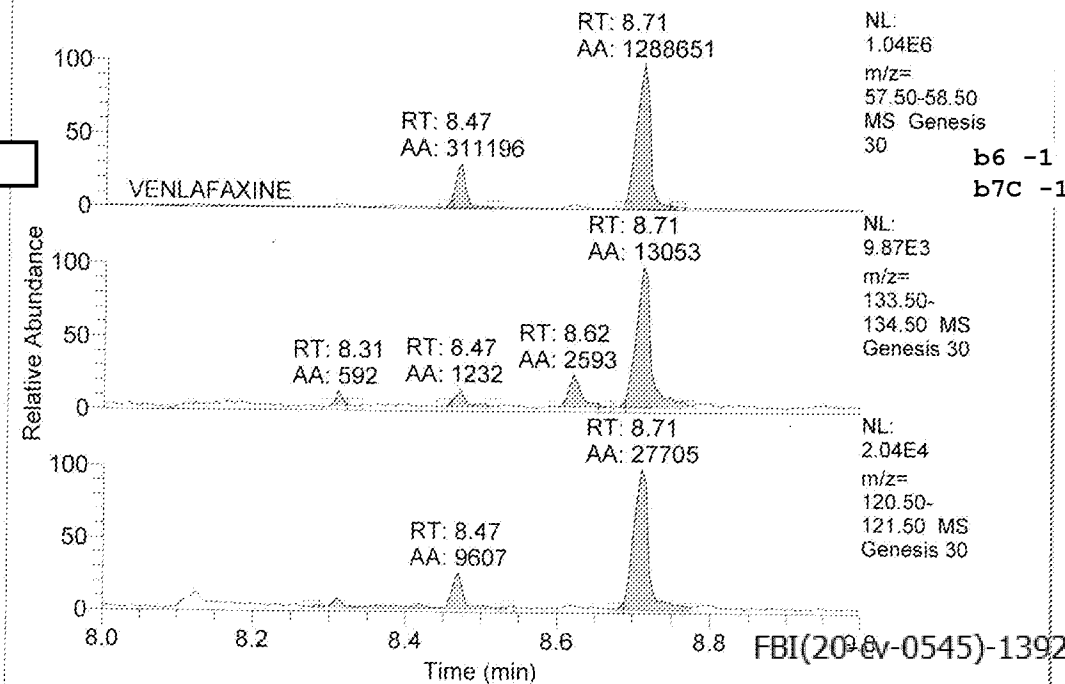
RT: 7.60 - 8.60



RT: 7.30 - 8.30



RT: 8.00 - 9.00



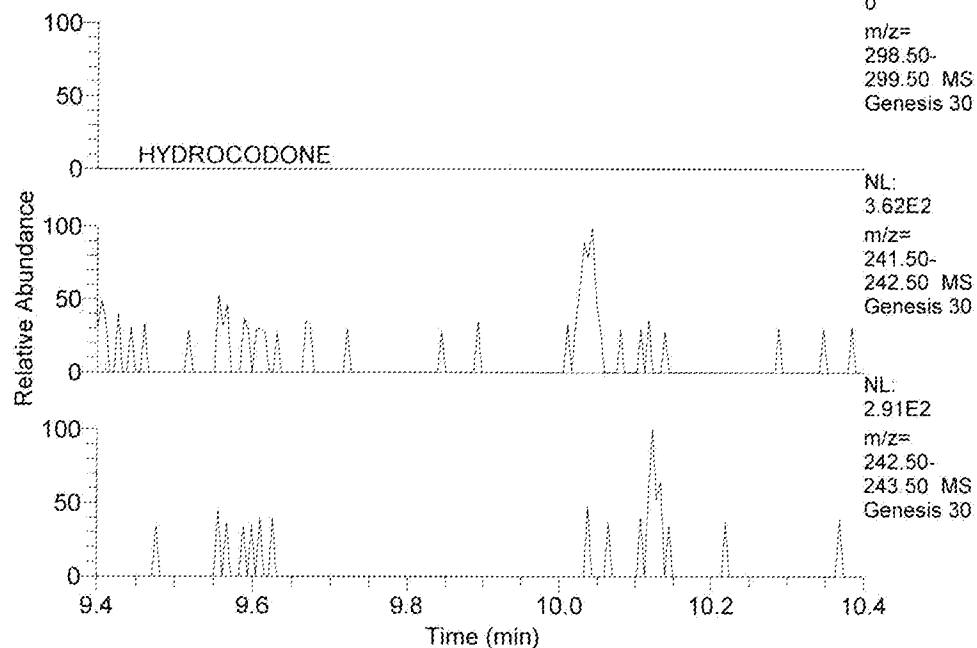
b6 -1

b7C -1

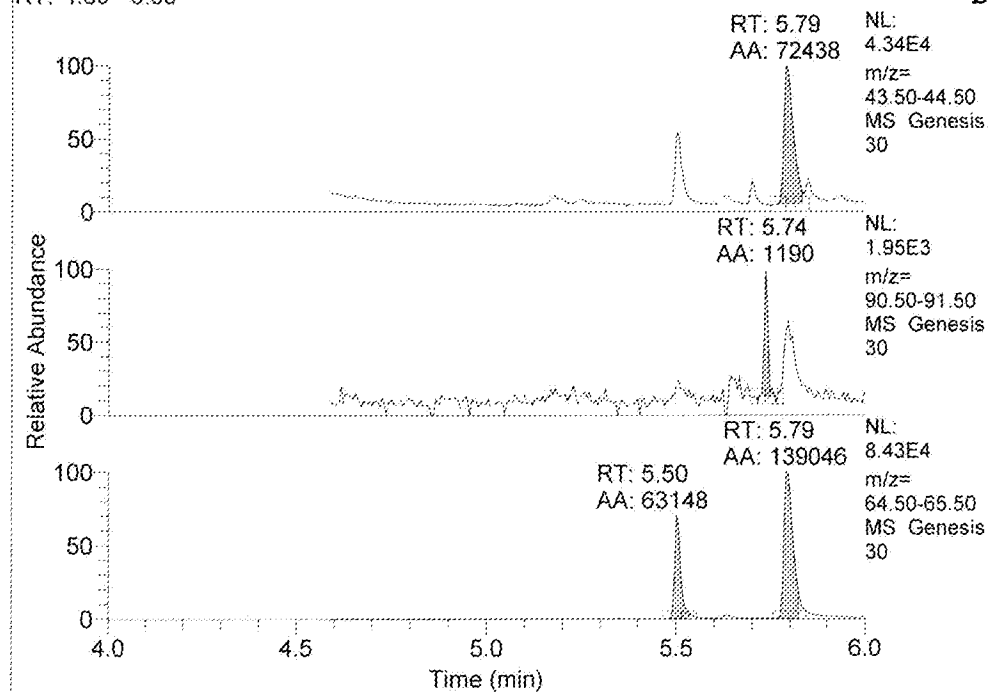
FBI(2017-0545)-1392



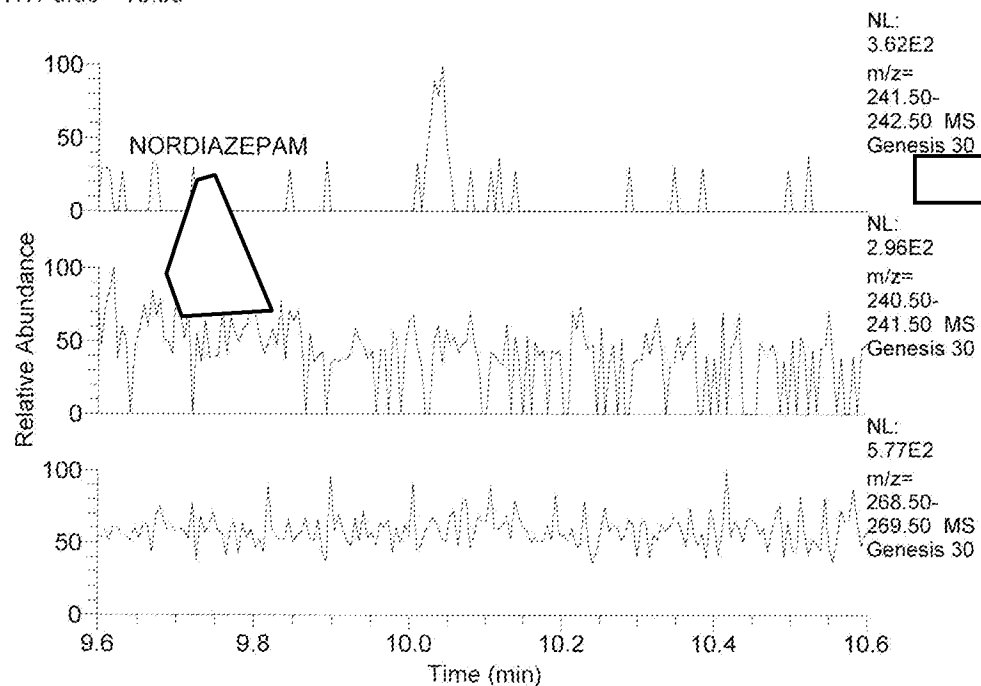
RT: 9.40 - 10.40



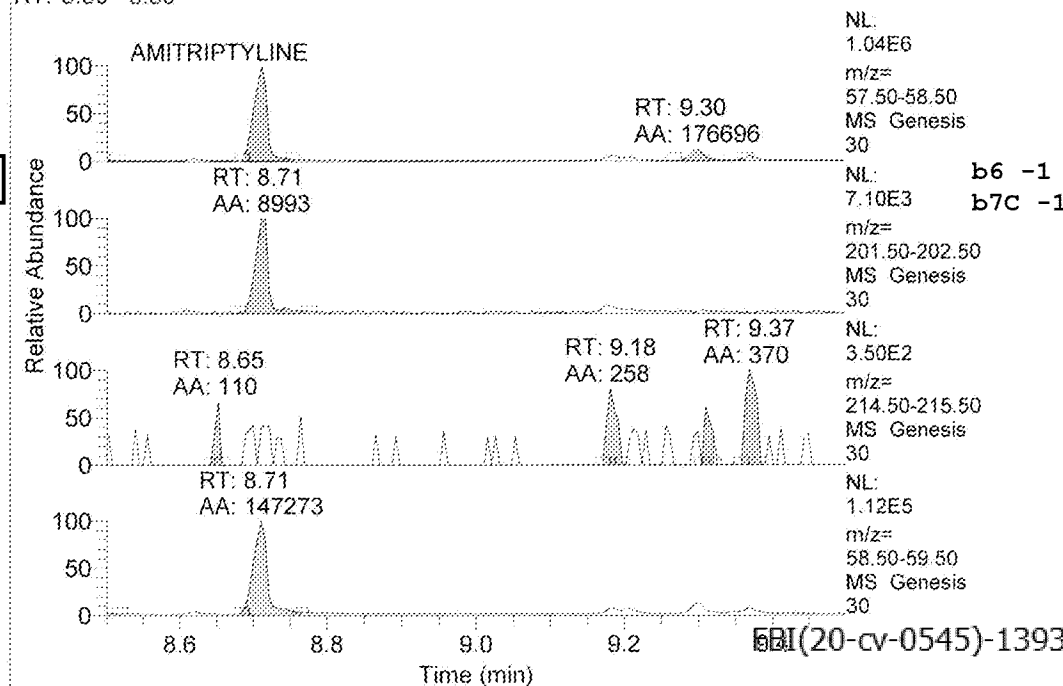
RT: 4.00 - 6.00



RT: 9.60 - 10.60



RT: 8.50 - 9.50



10/3/2017 11:12:08 AM

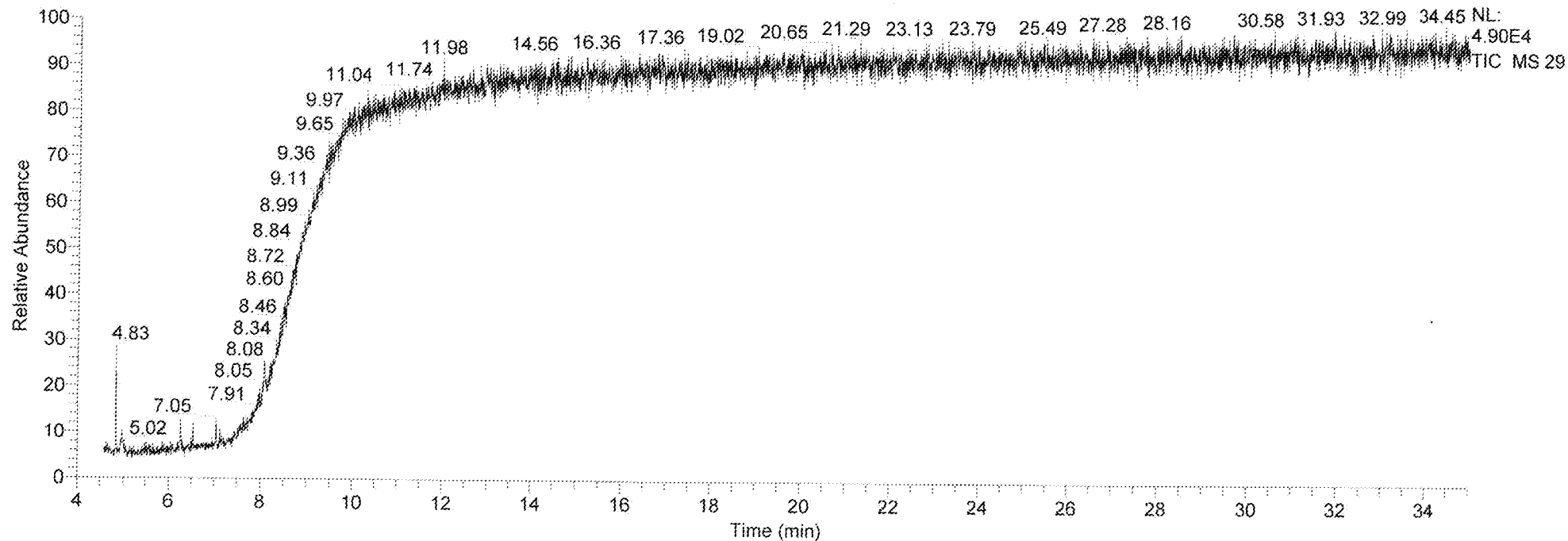
solvent blank

b6 -1

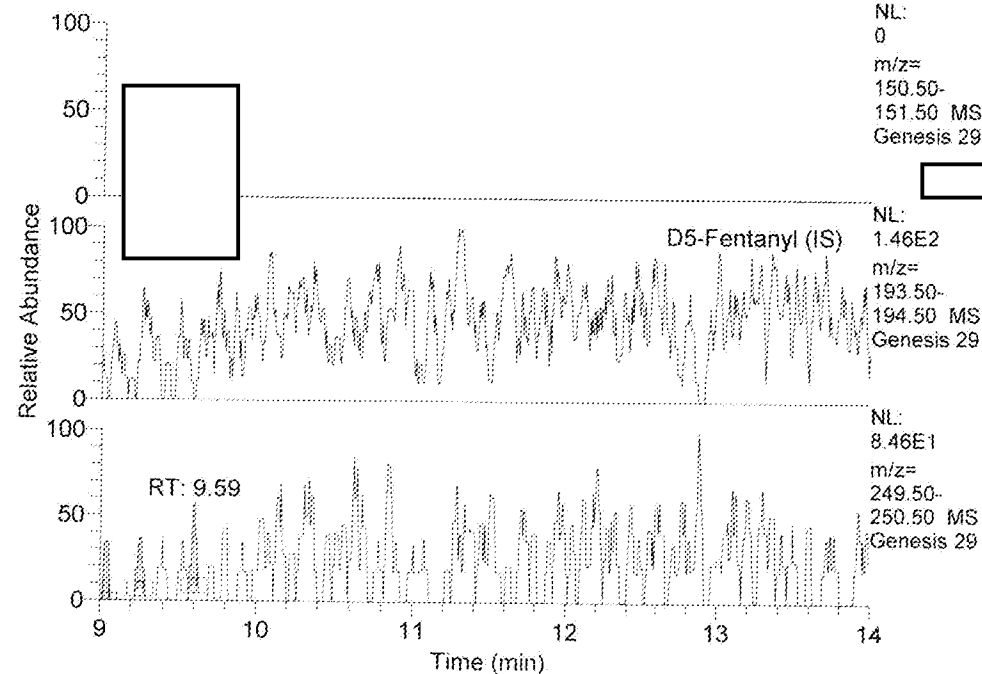
b7C -1

b7E -2

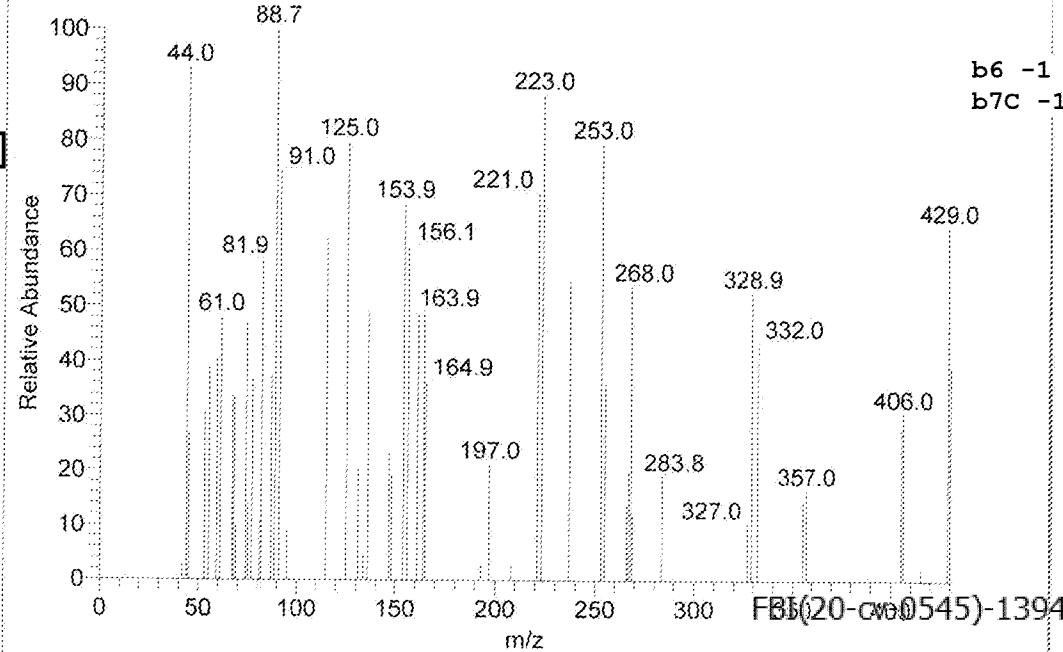
RT: 4.00 - 35.00



RT: 9.00 - 14.00 SM: 7B



29 #1107 RT: 10.51 AV: 1 SB: 2 10.86-11.01 NL: 2.11E2  
T: + c EI Full ms [0.00-430.00]



b6 -1

b7C -1

2017-00469 10/27-2017

10/3/2017 11:12:11 AM

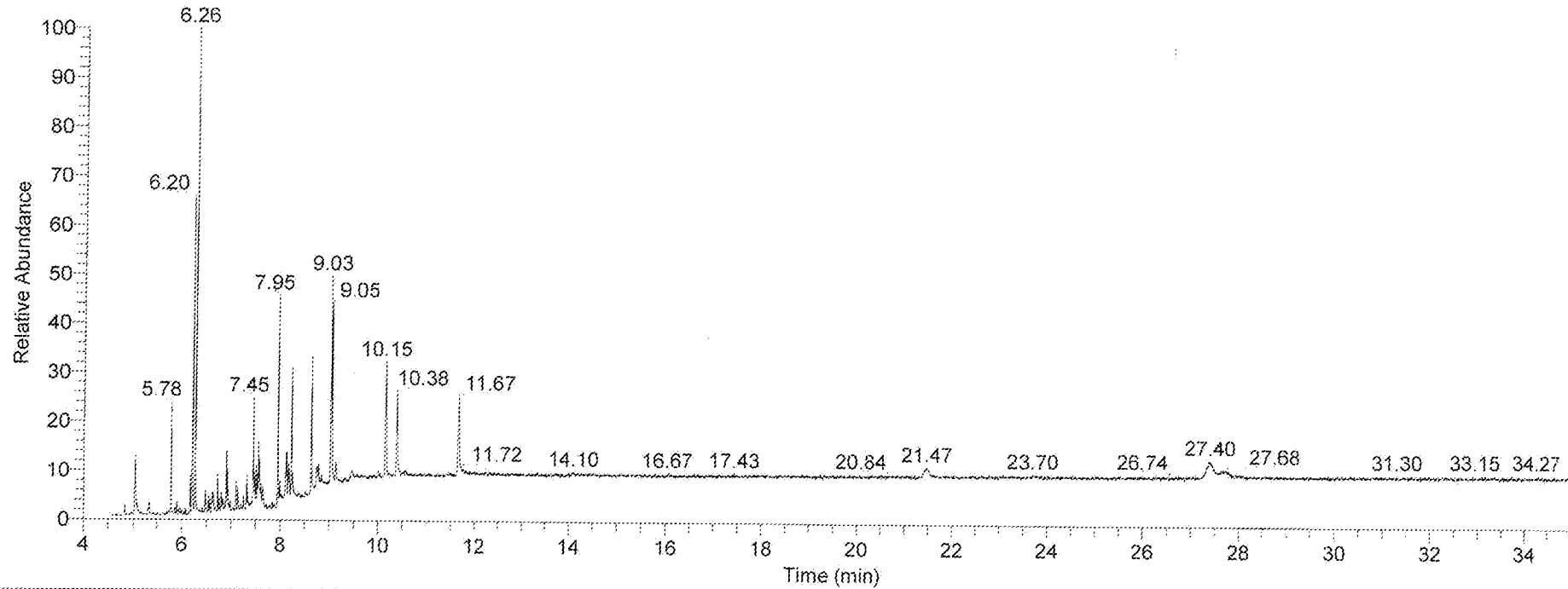
pos ctrl urine

b6 -1

b7C -1

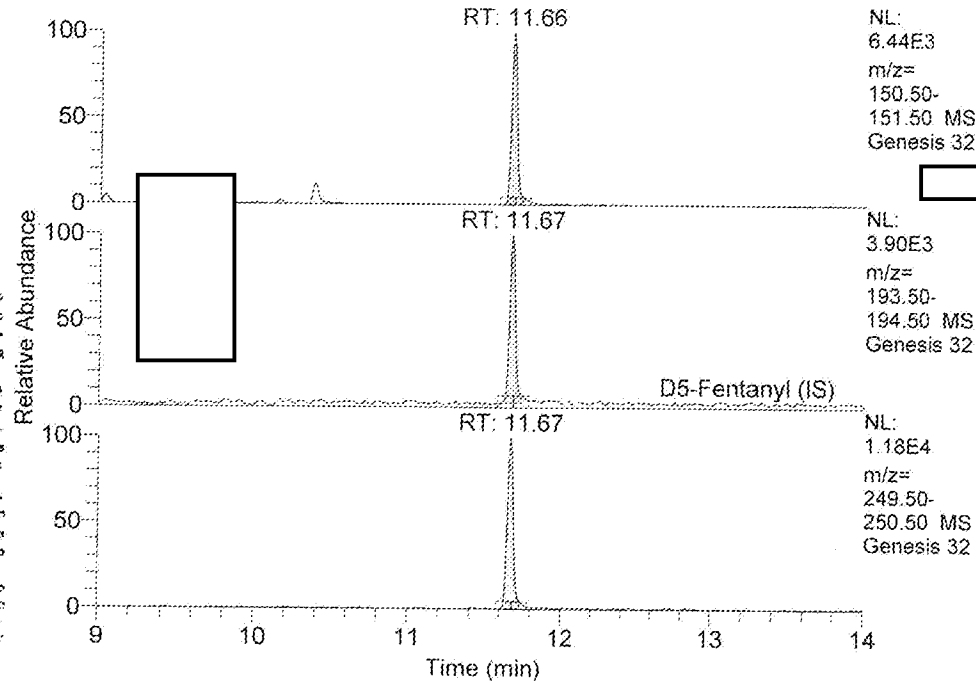
b7E -2

RT: 4.00 - 35.00



NL:  
5.04E5  
TIC MS 32

RT: 9.00 - 14.00 SM: 7B

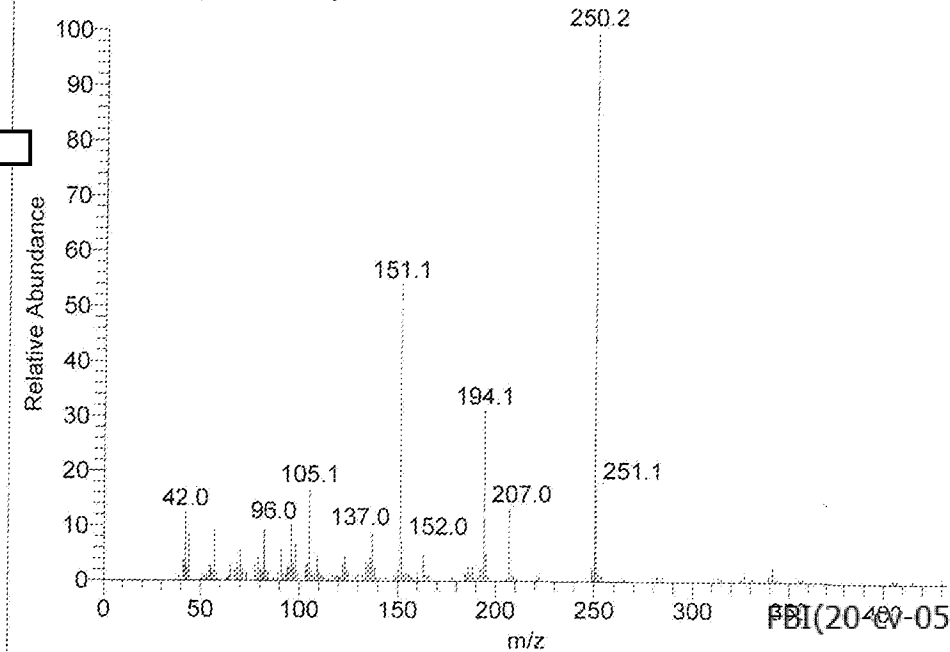


NL:  
6.44E3  
m/z=  
150.50-  
151.50 MS  
Genesis 32

NL:  
3.90E3  
m/z=  
193.50-  
194.50 MS  
Genesis 32

NL:  
1.18E4  
m/z=  
249.50-  
250.50 MS  
Genesis 32

32 #1324 RT: 11.67 AV: 1 SB: 7 10.86-11.01 NL: 1.64E4  
T: + c EI Full ms [0.00-431.00]



b6 -1

b7C -1

FBI(20400-0545)-1395

10/3/2017 11:12:11 AM

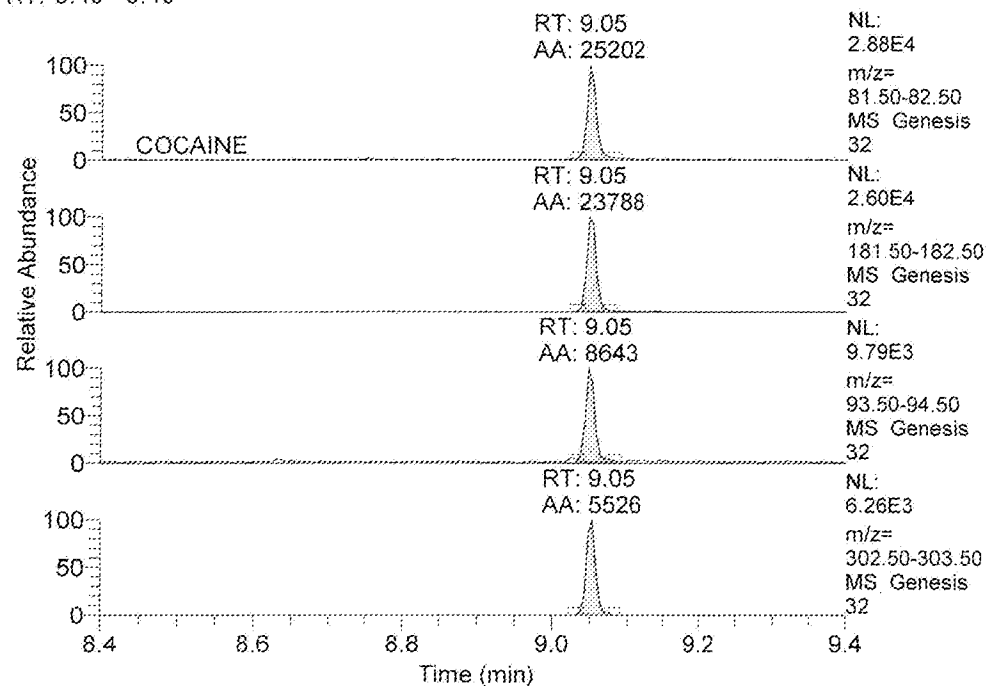
pos ctrl urine

b6 -1

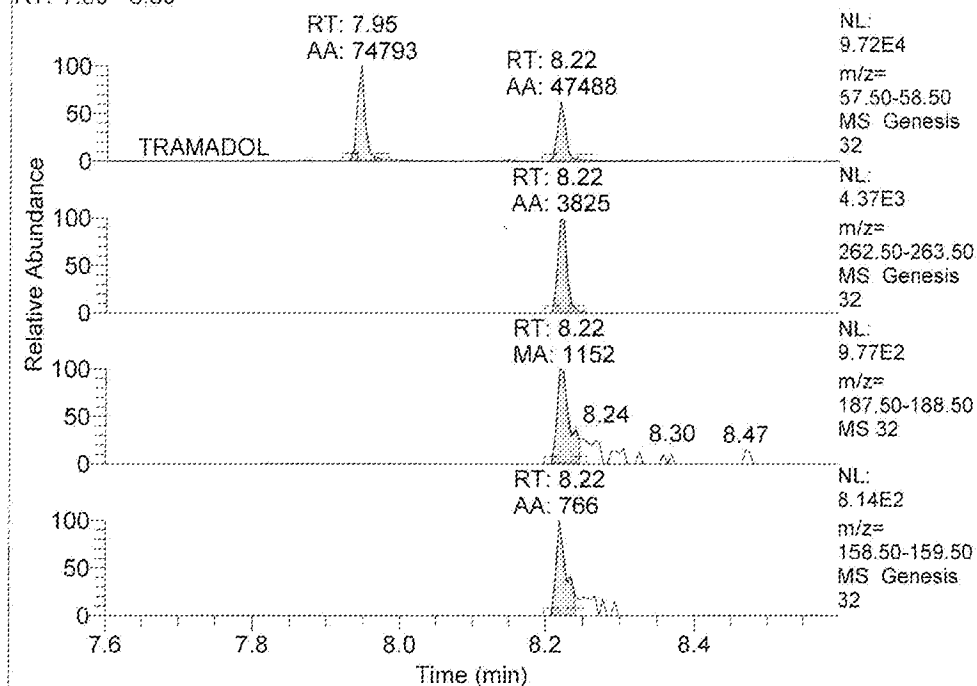
b7C -1

b7E -2

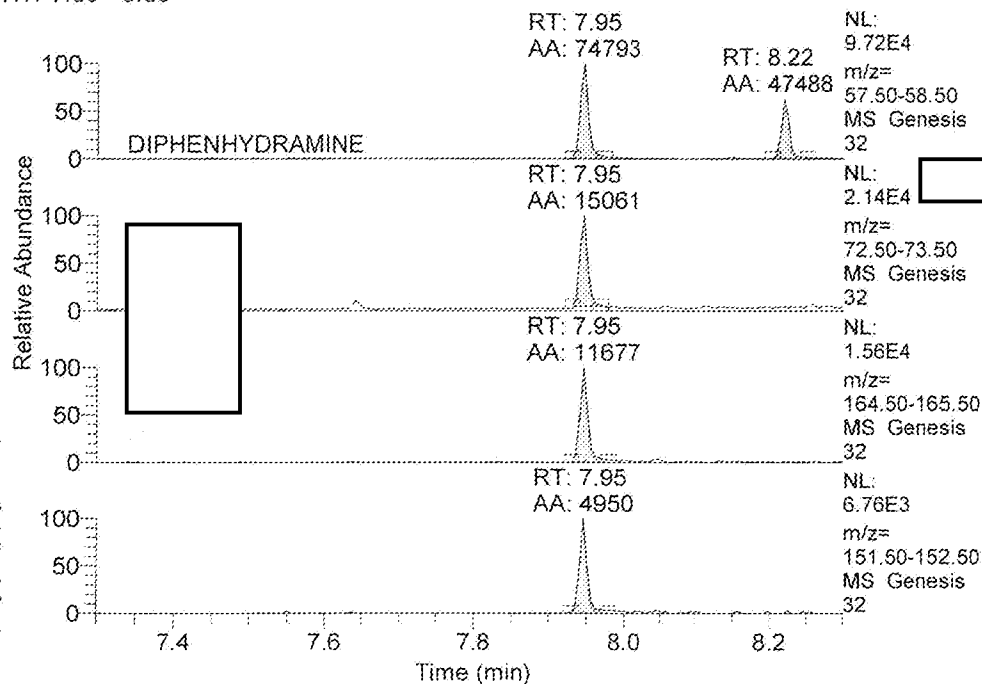
RT: 8.40 - 9.40



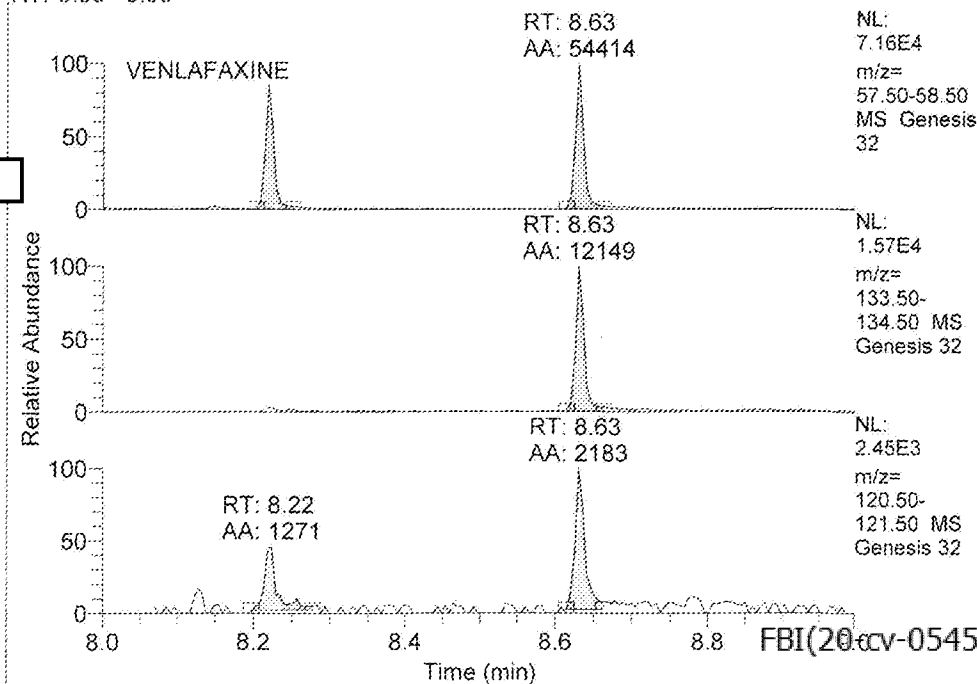
RT: 7.60 - 8.60



RT: 7.30 - 8.30



RT: 8.00 - 9.00



b6 -1

b7C -1

FBI(20-cv-0545)-1396

10/3/2017 11:12:11 AM

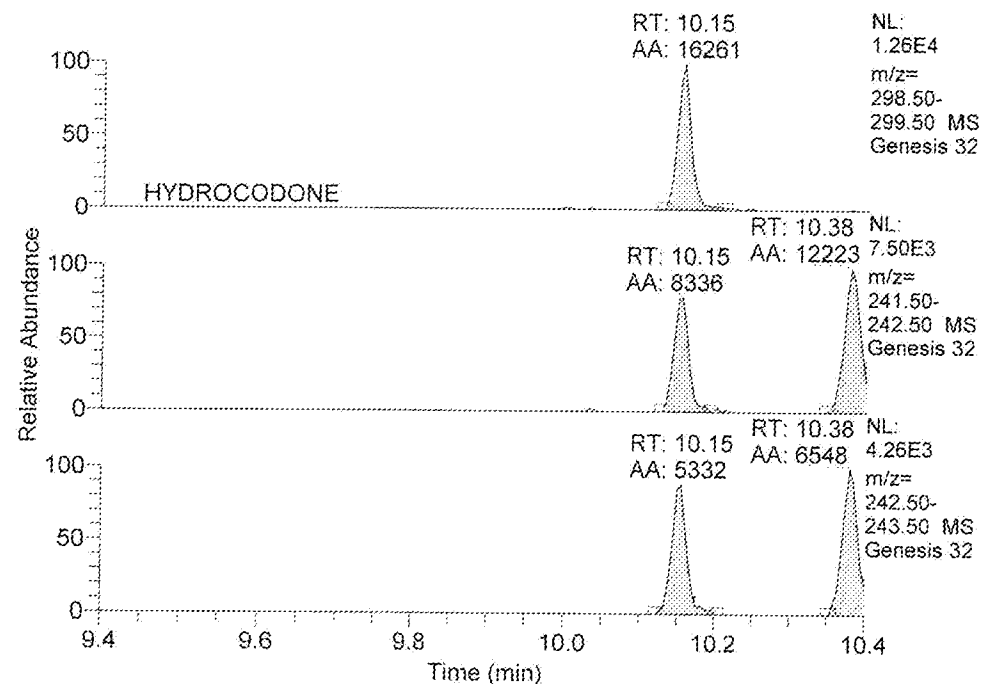
pos ctrl urine

b6 -1

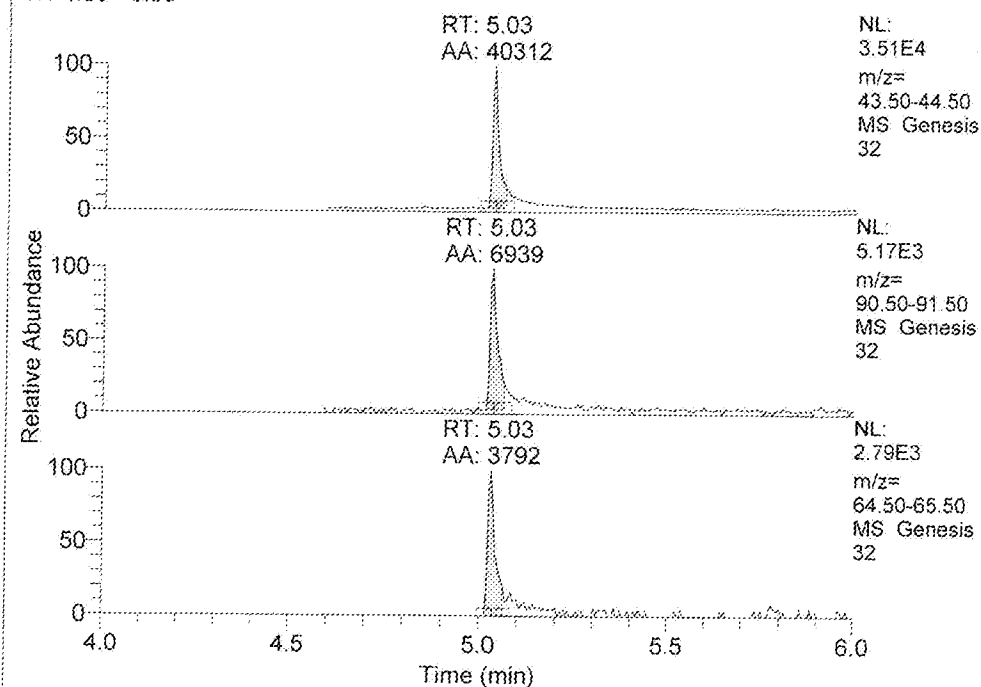
b7C -1

b7E -2

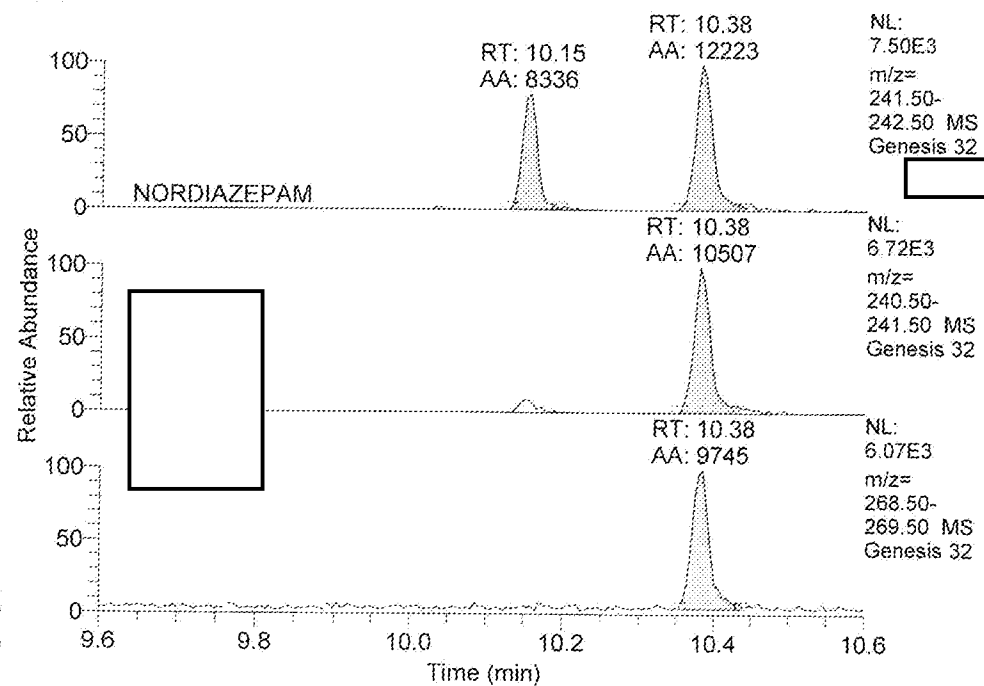
RT: 9.40 - 10.40



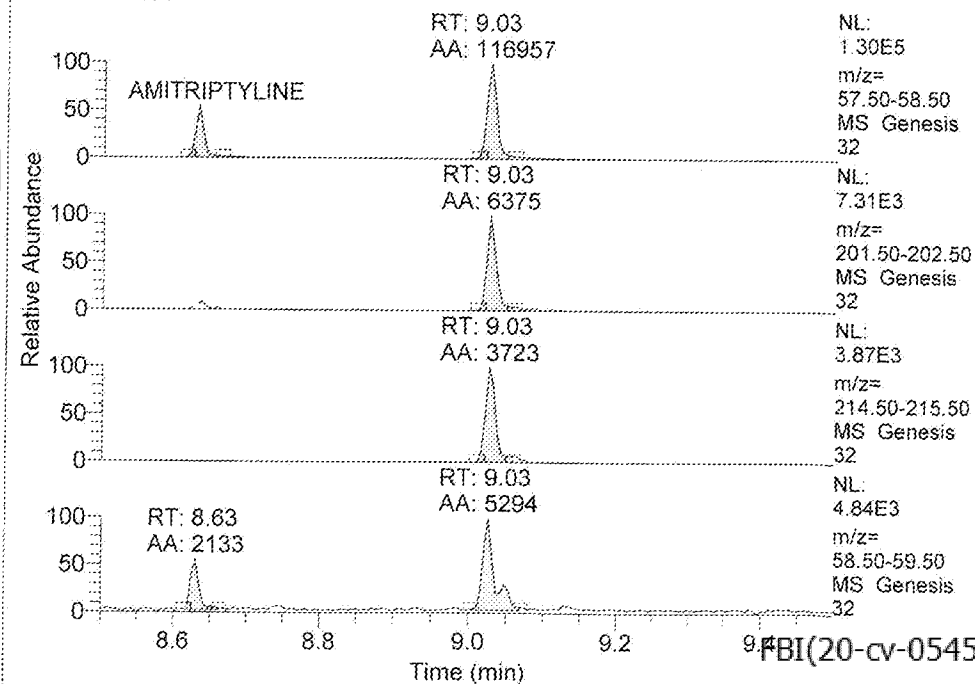
RT: 4.00 - 6.00



RT: 9.60 - 10.60



RT: 8.50 - 9.50



b6 -1

b7C -1

FBI(20-cv-0545)-1397

10/3/2017 11:12:06 AM

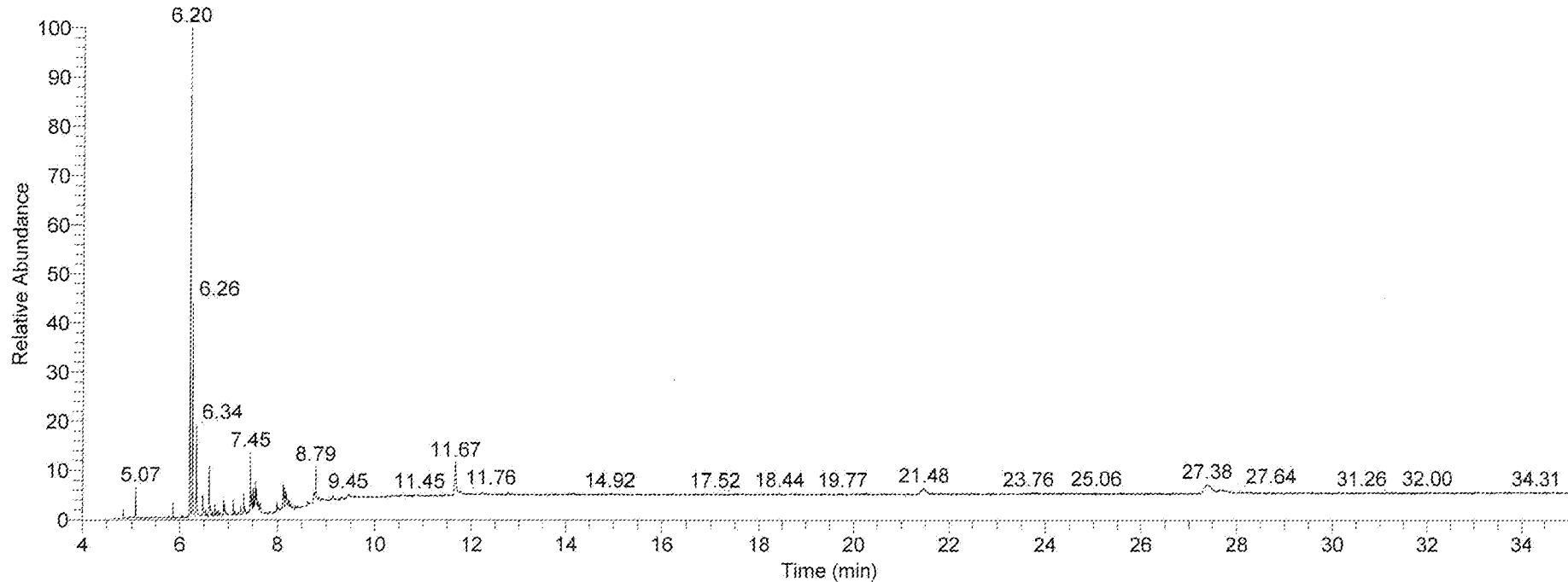
neg ctrl urine

b6 -1

b7C -1

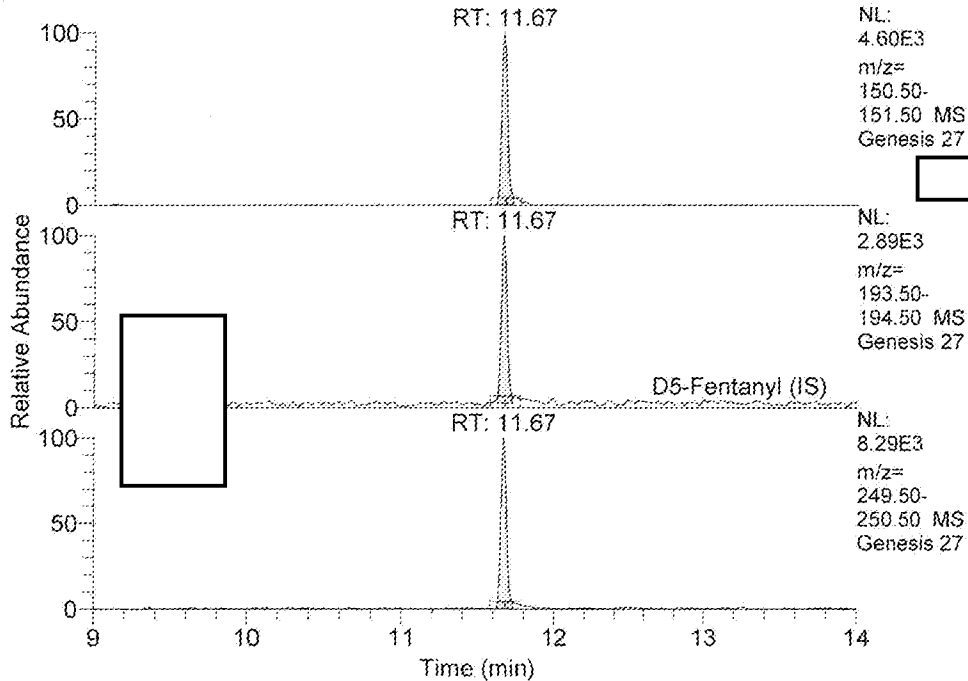
b7E -2

RT: 4.00 - 35.00

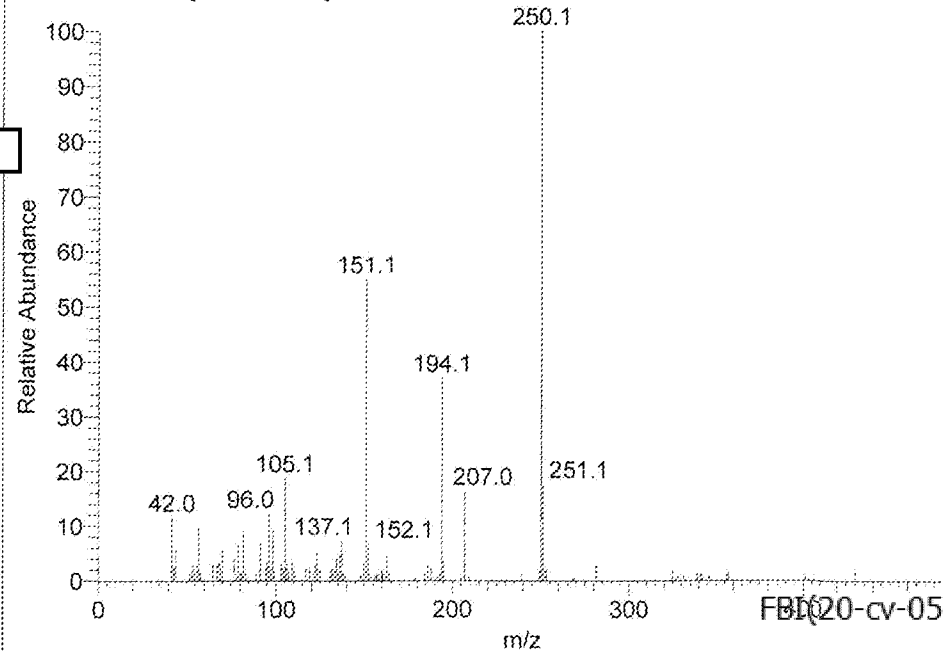


NL:  
8.59E5  
TIC MS 27

RT: 9.00 - 14.00 SM: 7B



27 #1325 RT: 11.67 AV: 1 SB: 1 10.86-11.01 NL: 1.00E4  
T: + c EI Full ms [0.00-479.00]



b6 -1

b7C -1

FBI(20-cv-0545)-1398

10/3/2017 11:12:06 AM

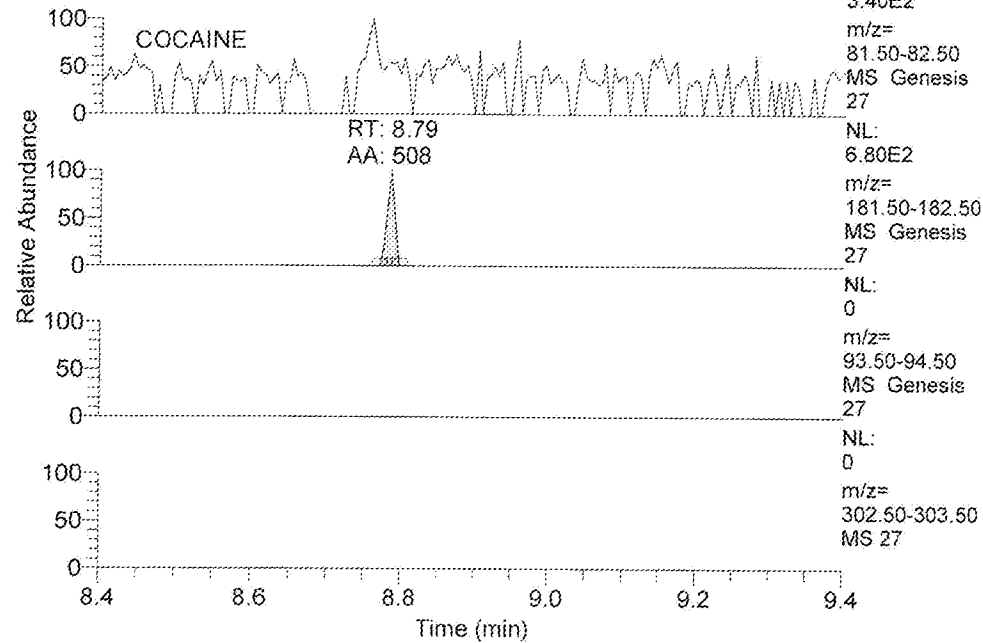
neg ctrl urine

b6 -1

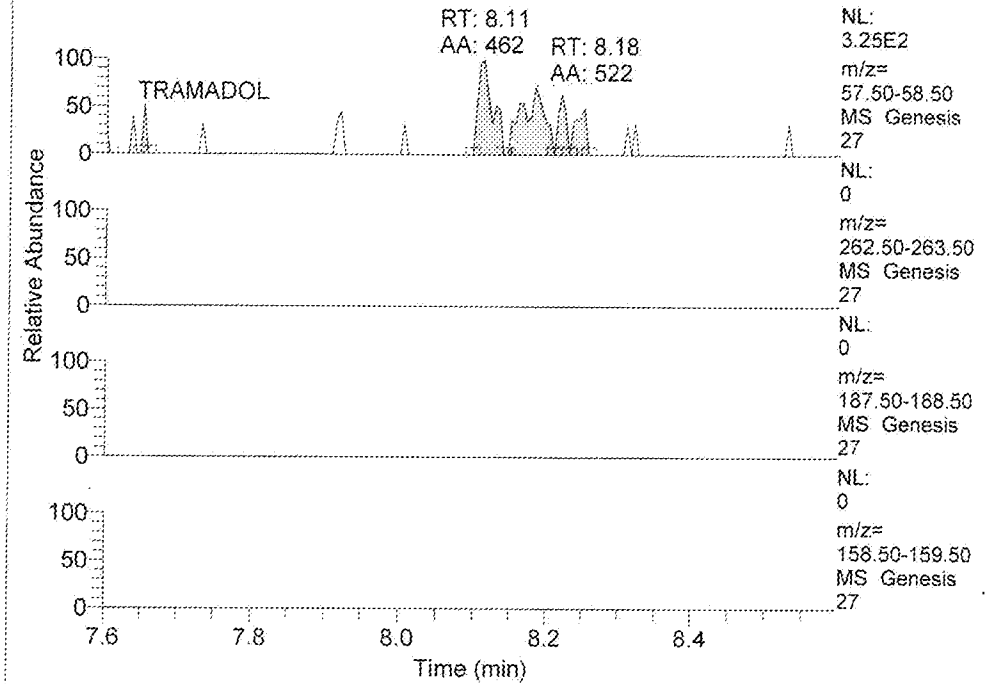
b7C -1

b7E -2

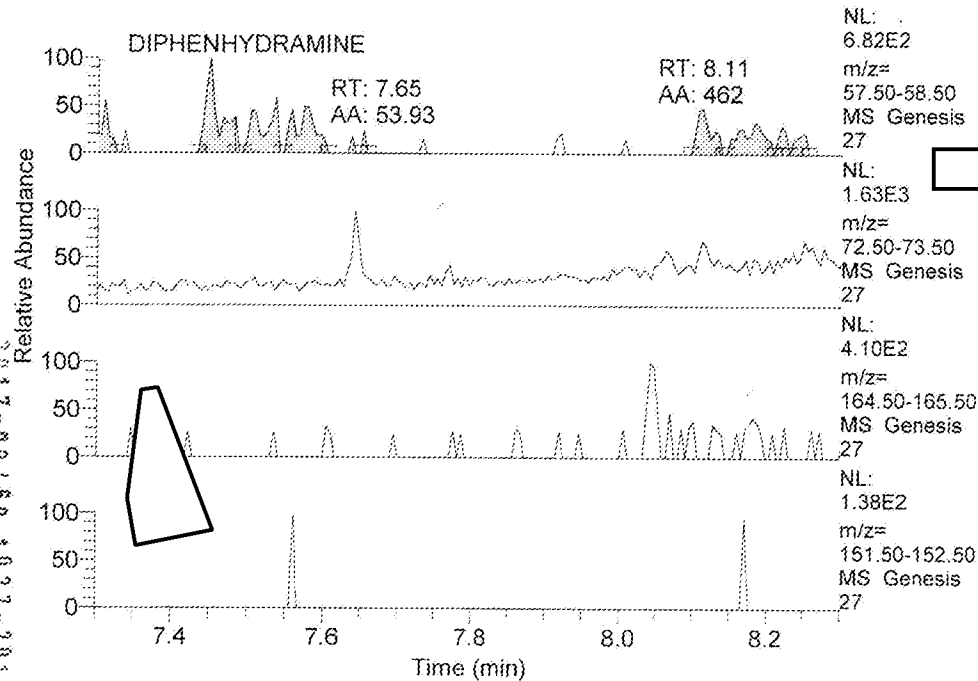
RT: 8.40 - 9.40



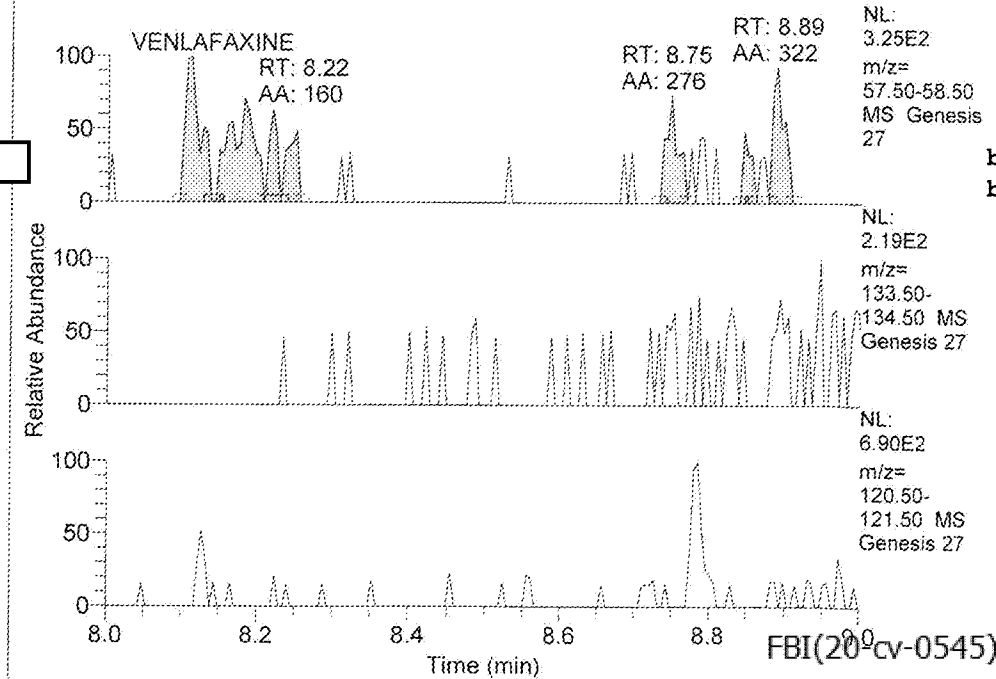
RT: 7.60 - 8.60



RT: 7.30 - 8.30



RT: 8.00 - 9.00



b6 -1

b7C -1

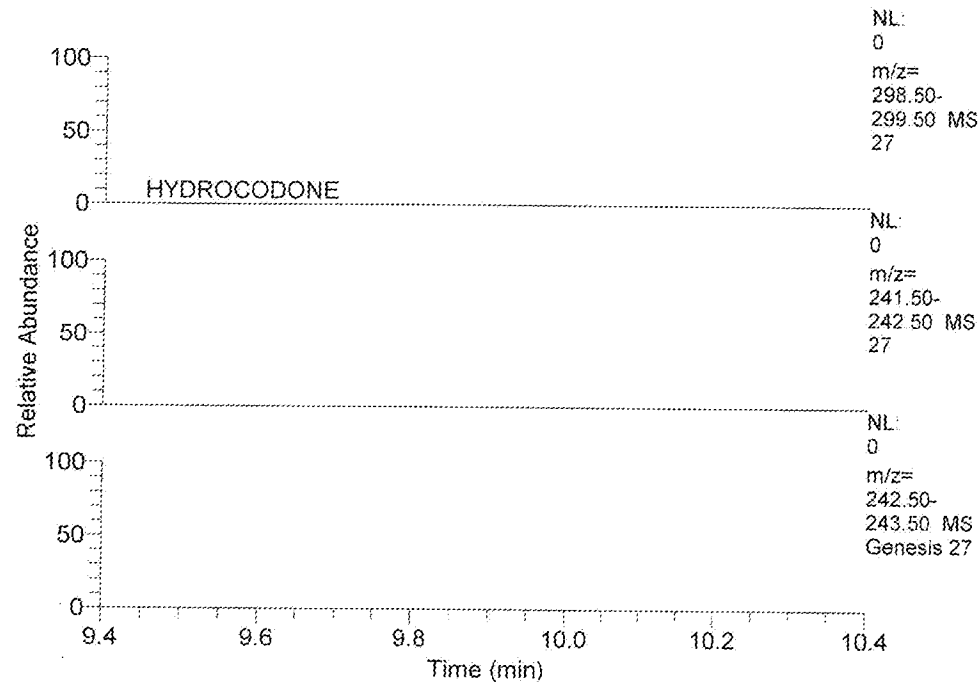
FBI(20-cv-0545)-1399

10/3/2017 11:12:06 AM

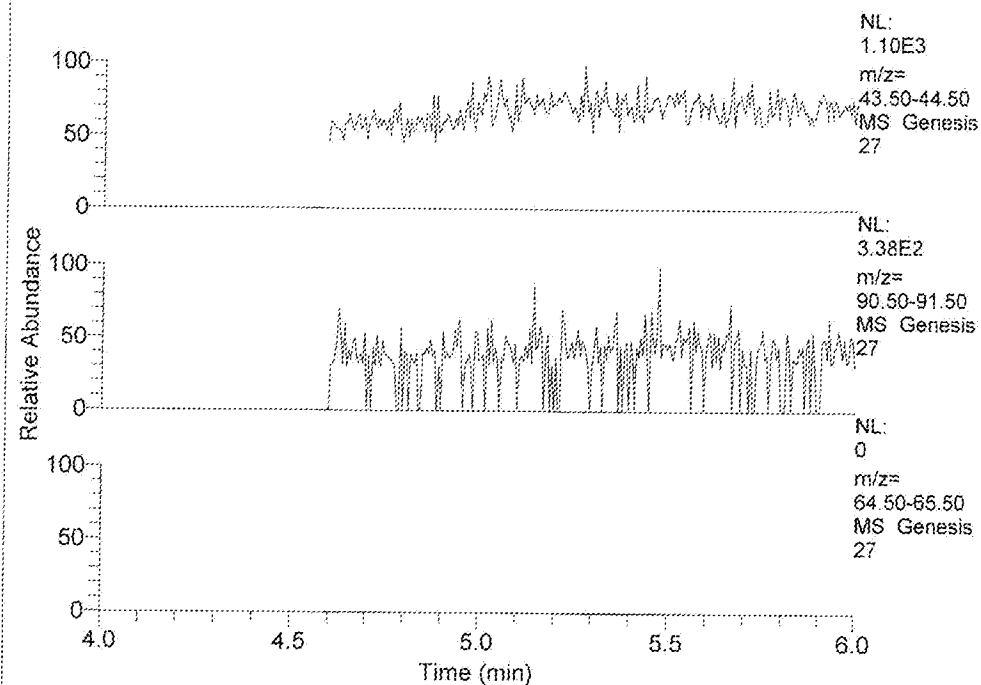
neg ctrl urine

b6 -1  
b7C -1  
b7E -2

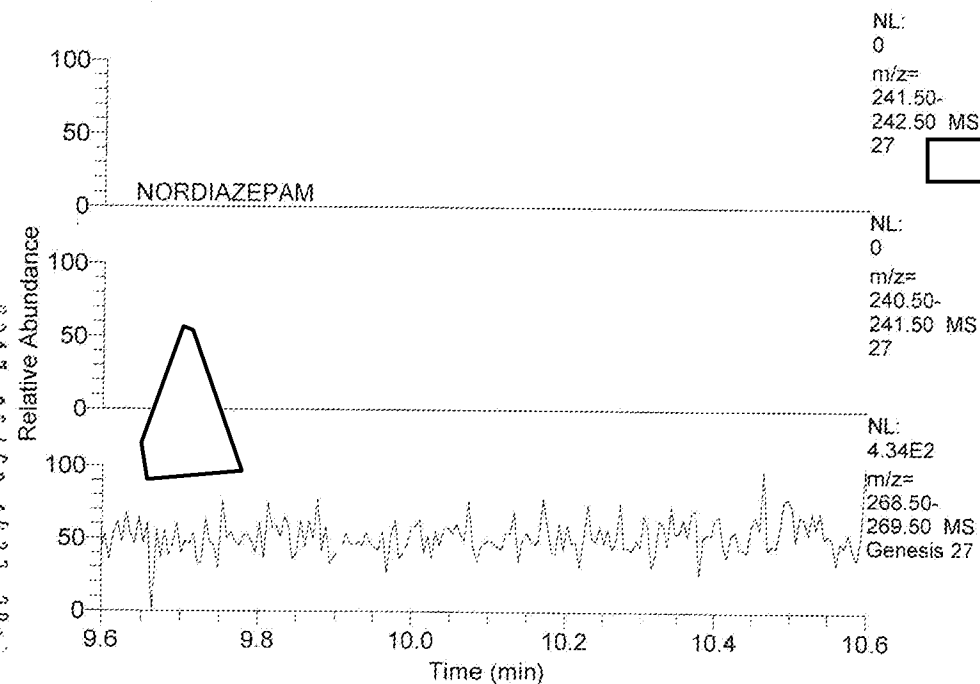
RT: 9.40 - 10.40



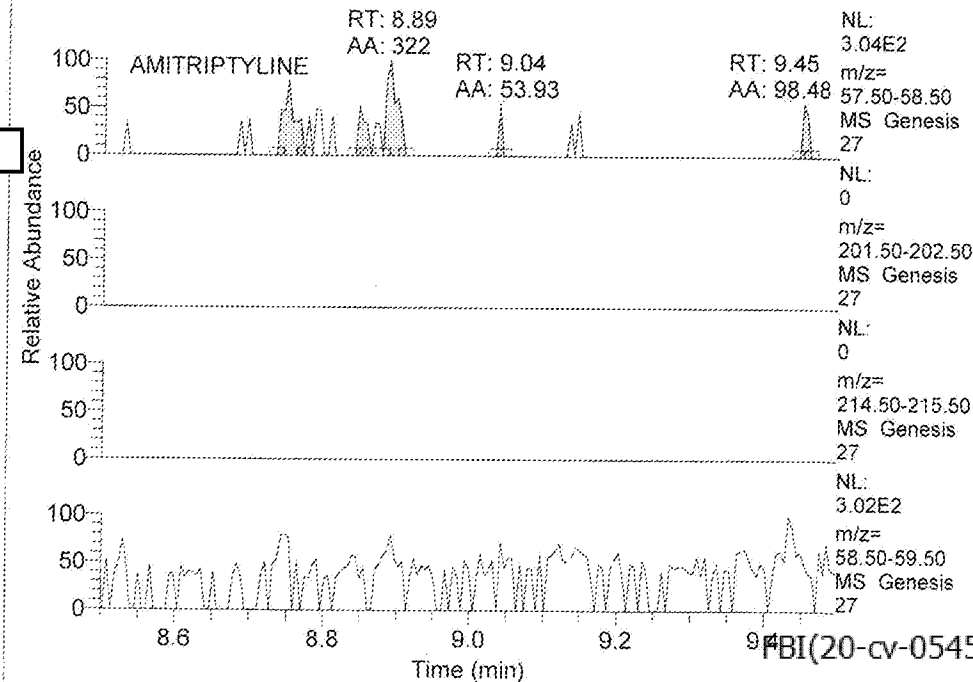
RT: 4.00 - 6.00



RT: 9.60 - 10.60



RT: 8.50 - 9.50



b6 -1  
b7C -1

FBI(20-cv-0545)-1400



10/3/2017 2:52:57 PM

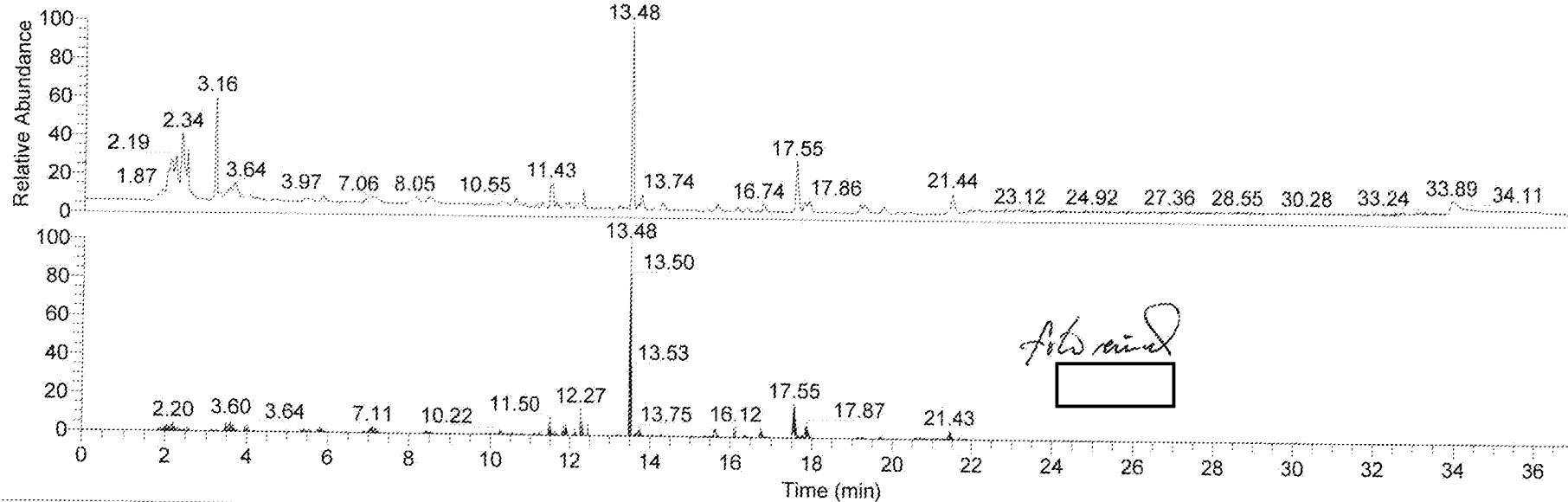
2017-00469, 1, blood

b6 -1

b7C -1

b7E -2

RT: 0.00 - 37.02



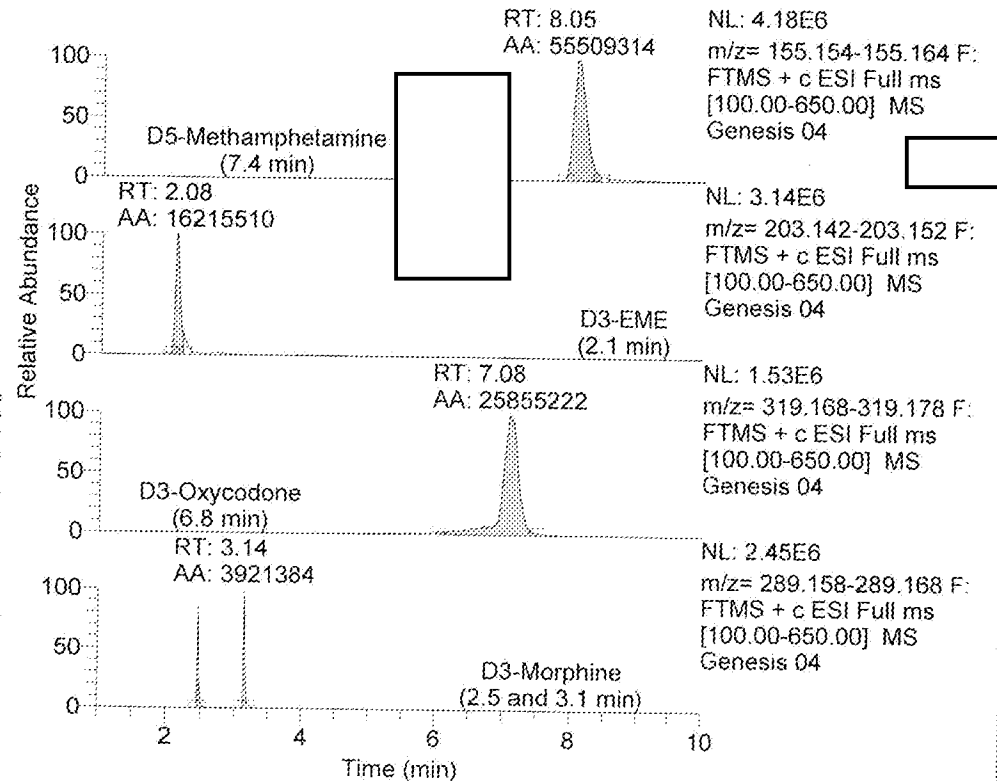
NL: 1.46E8  
TIC F: FTMS +  
c ESI Full ms  
[100.00-650.00]  
MS 04

NL: 5.32E6  
TIC F: ITMS +  
c ESI d Full  
ms2 MS 04

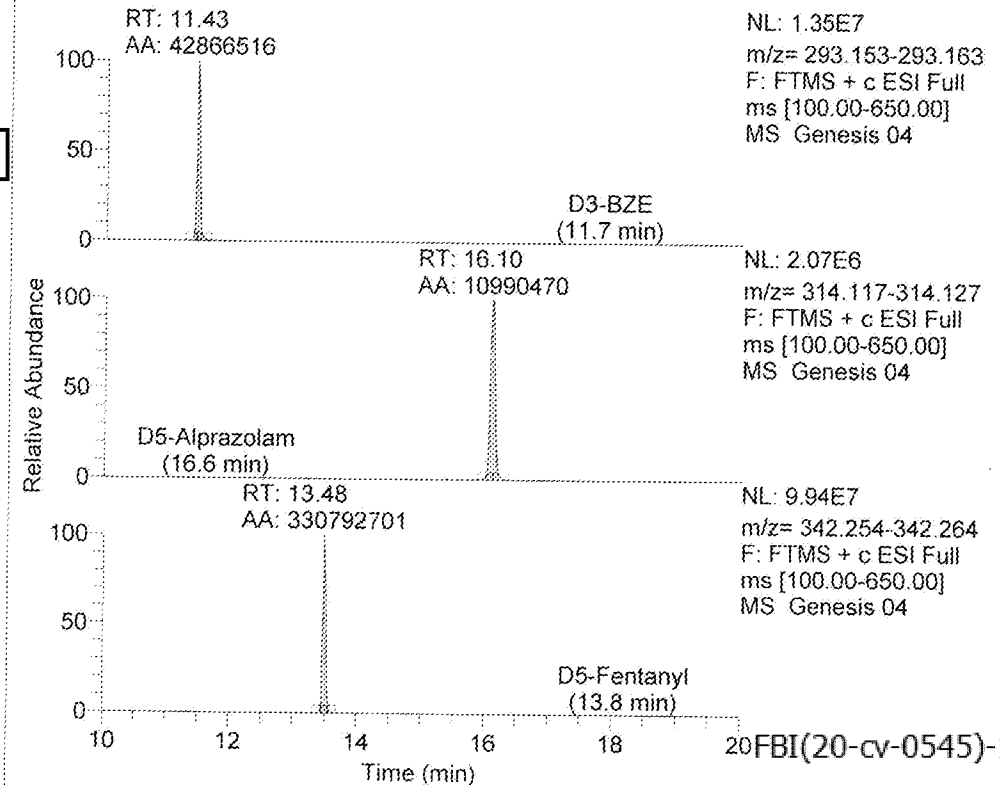
b6 -1

b7C -1

RT: 1.00 - 10.00



RT: 10.00 - 20.00



20FBI(20-cv-0545)-1401



10/3/2017 2:52:57 PM

2017-00469, 1, blood

b6 -1

b7C -1

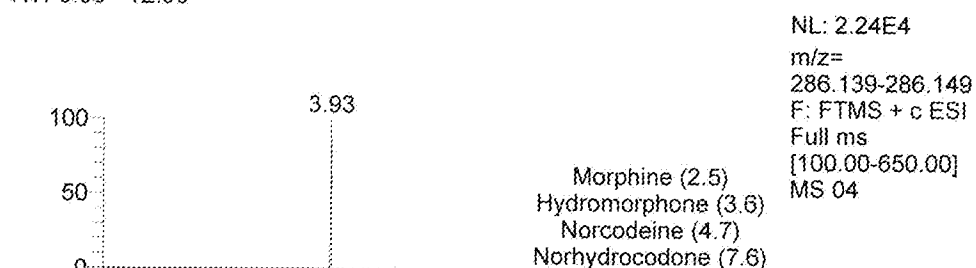
b7E -2

## Alkaline Drug Screen

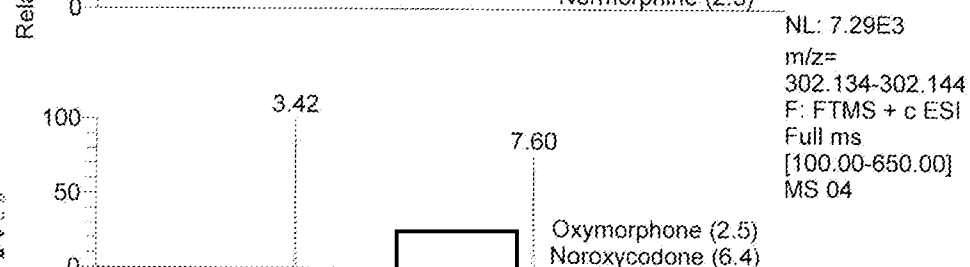
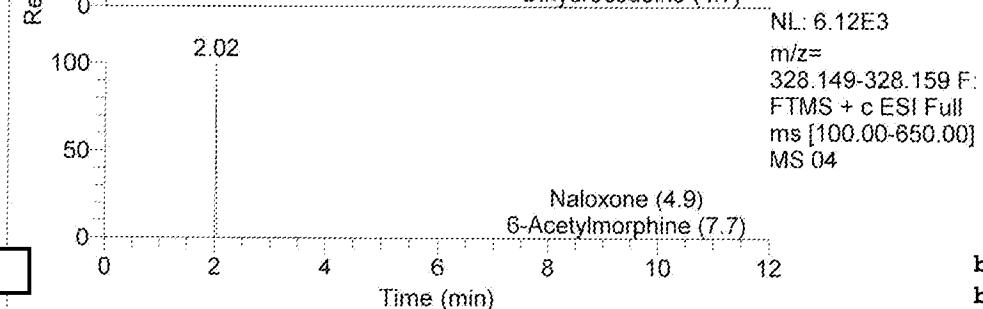
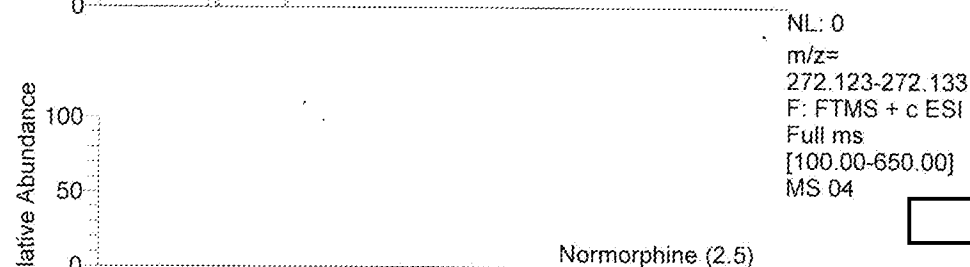
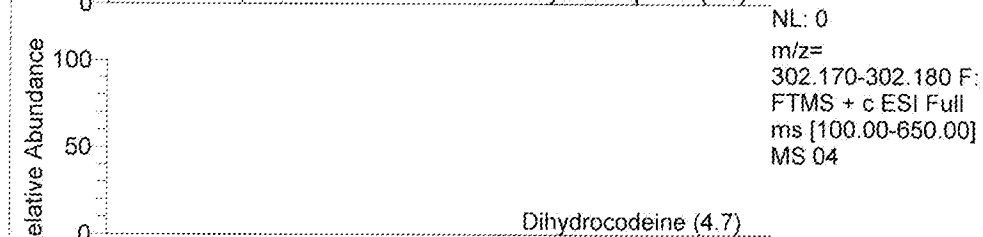
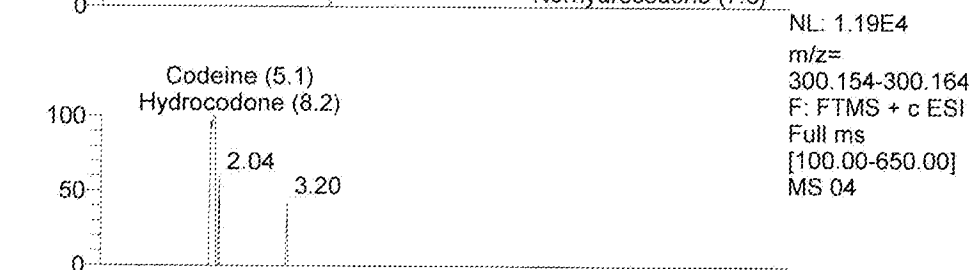
RT: 0.00 - 12.00

## LC-ESI-FTMS Data

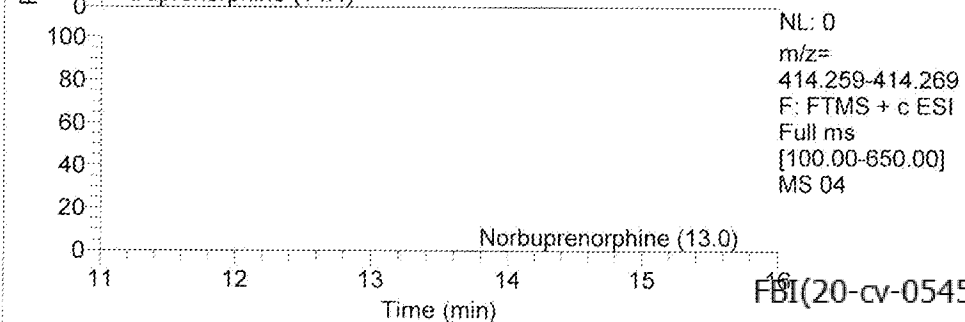
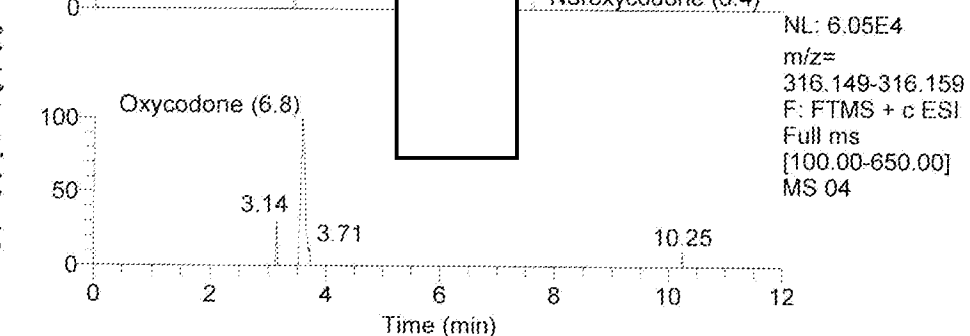
## ANALGESICS - PART 1



RT: 0.00 - 12.00



RT: 11.00 - 16.00



b6 -1

b7C -1

FBI(20-cv-0545)-1402

10/3/2017 2:52:57 PM

2017-00469, 1, blood

b6 -1

b7C -1

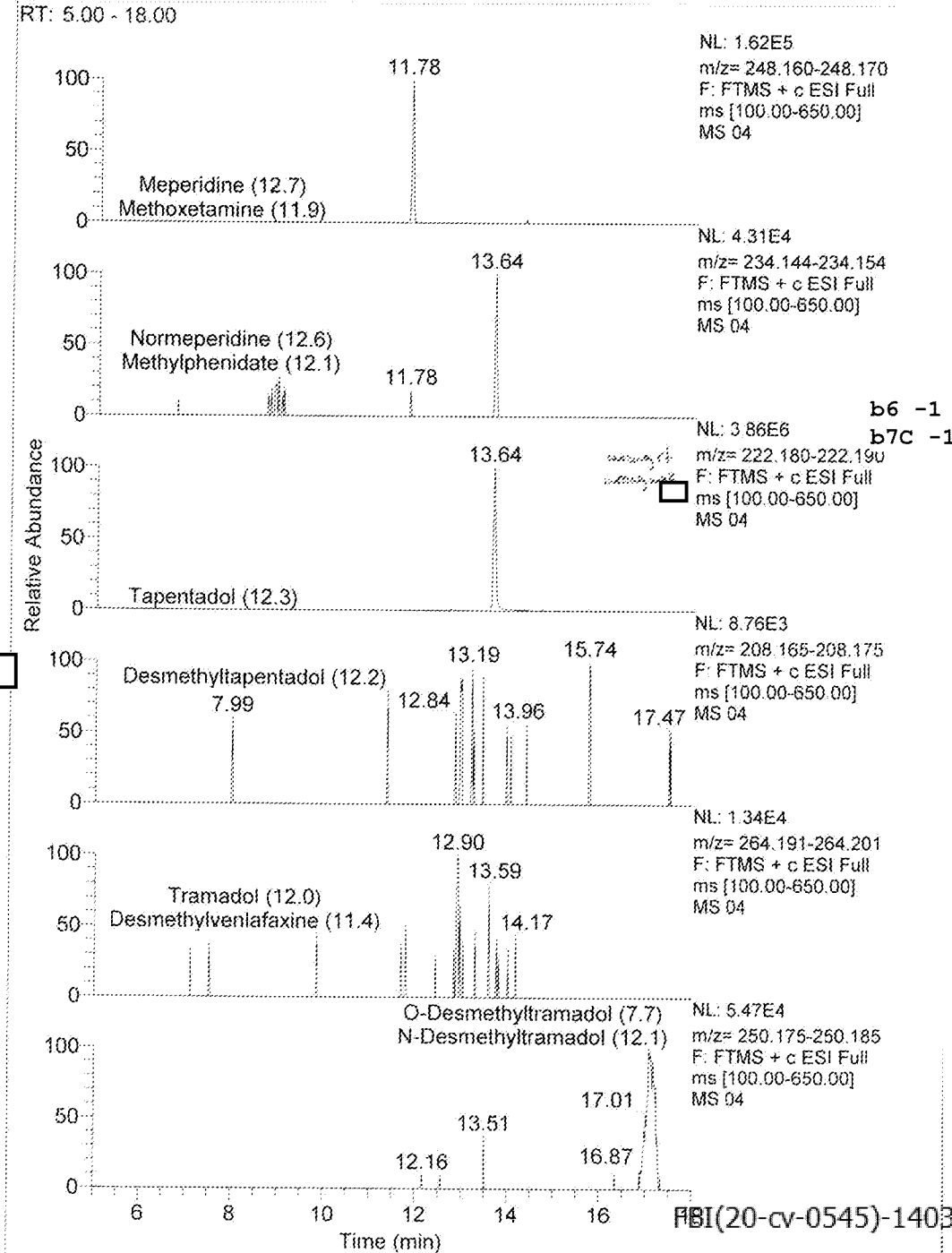
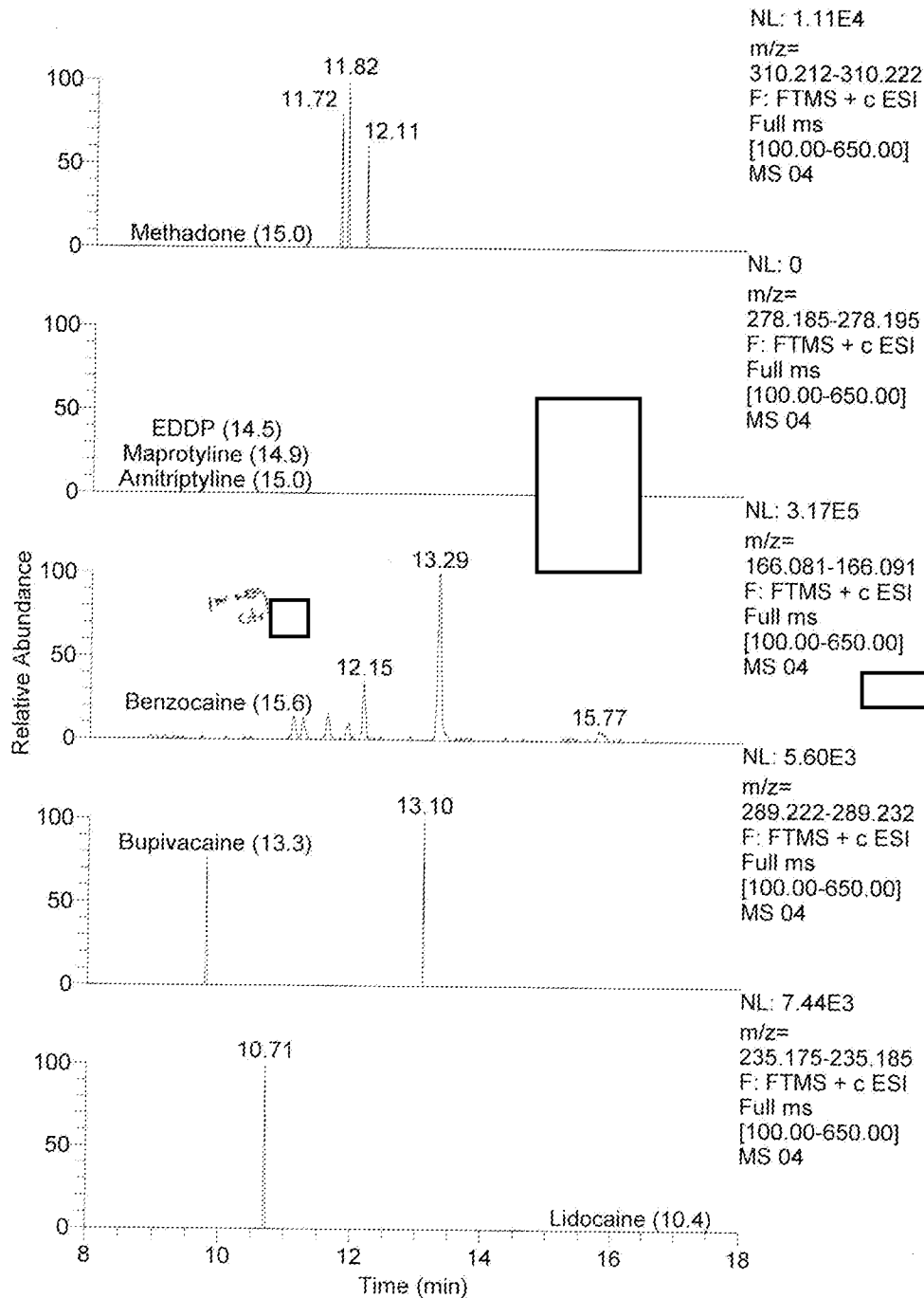
b7E -2

## Alkaline Drug Screen

RT: 8.00 - 18.00

## LC-ESI-FTMS Data

## ANALGESICS-PART 2



[Redacted]

10/3/2017 2:52:57 PM

2017-00469, 1, blood

b6 -1

b7C -1

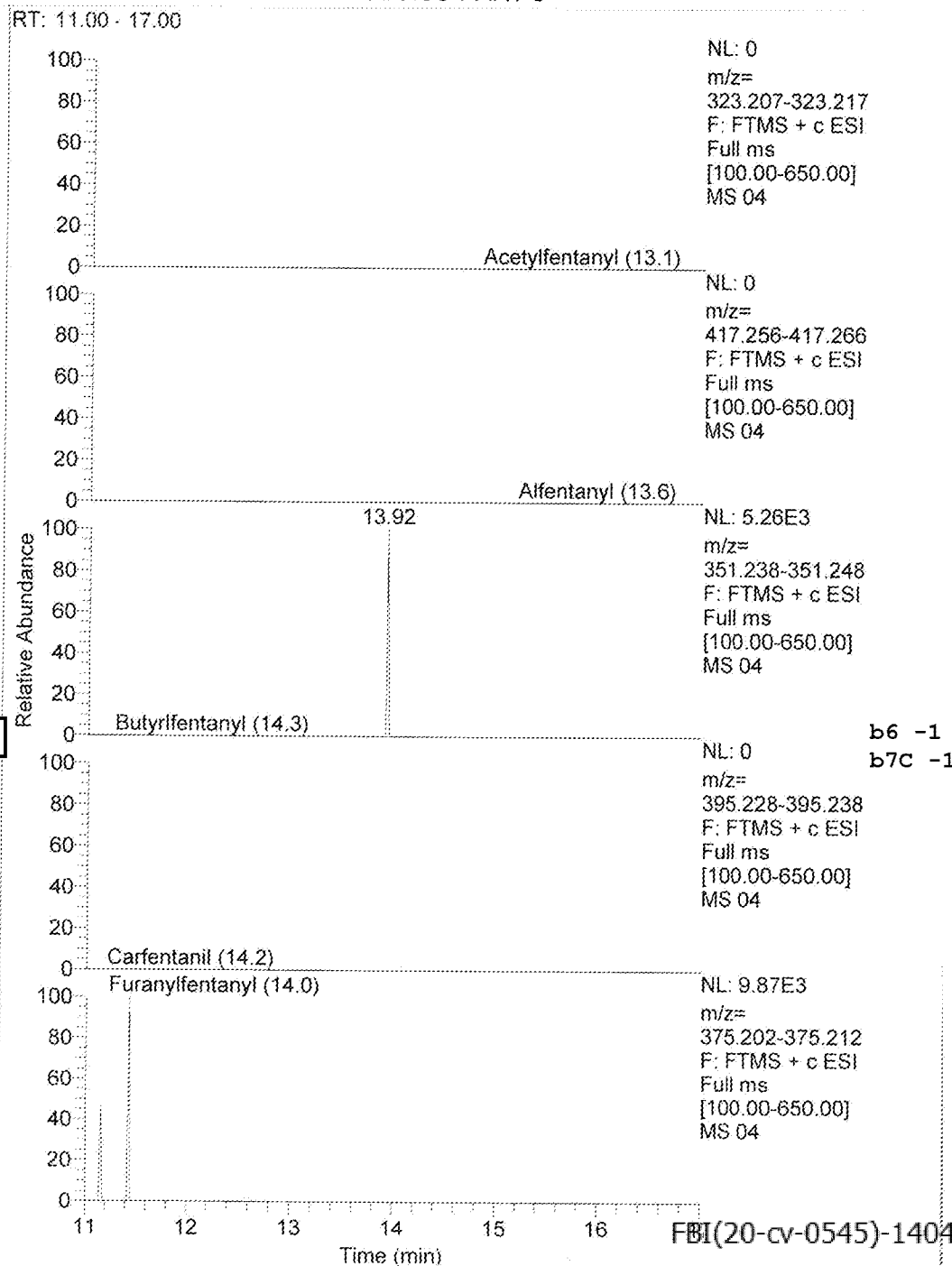
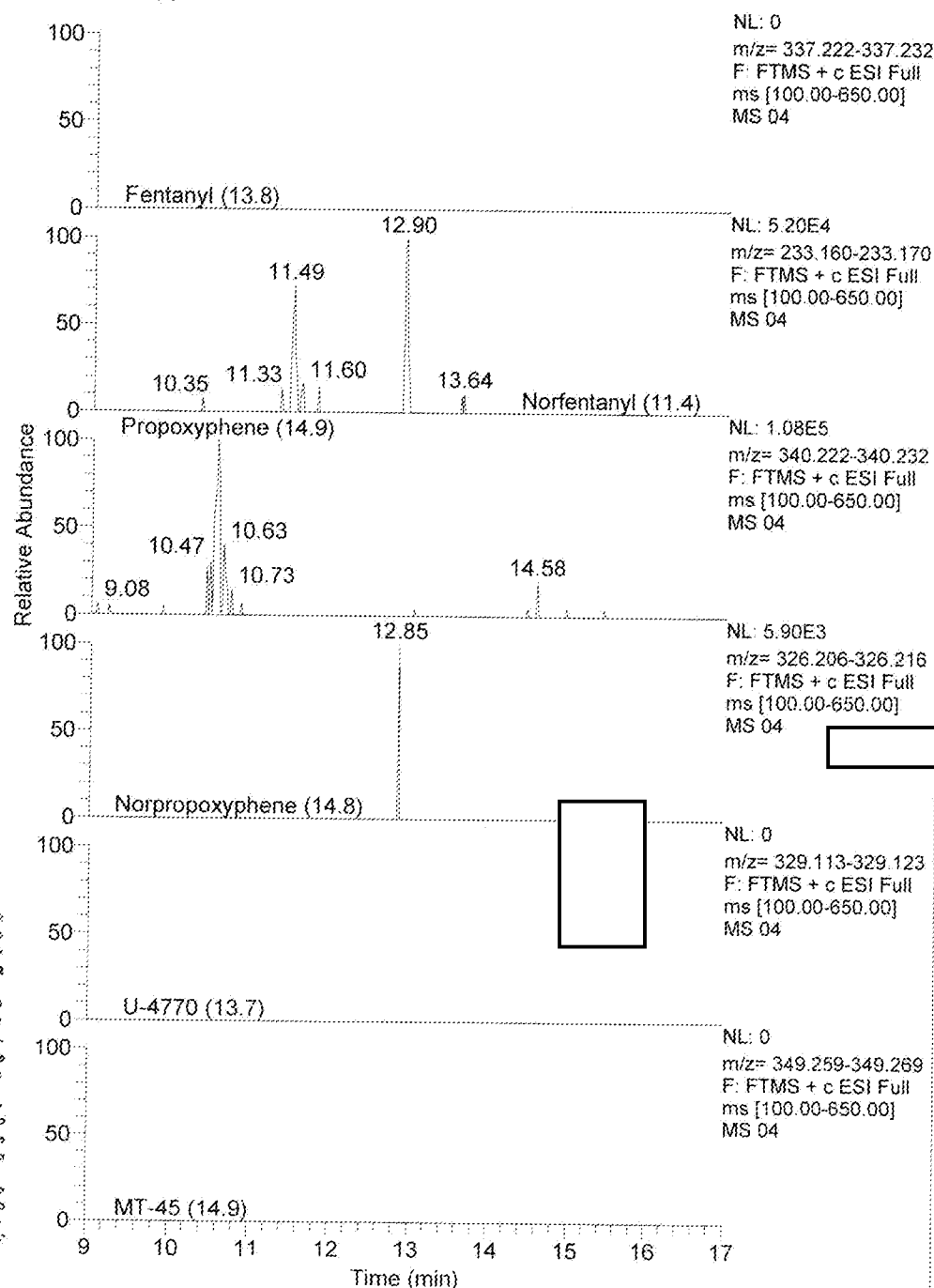
b7E -2

Alkaline Drug Screen

RT: 9.00 - 17.00

LC-ESI-FTMS Data

ANALGESICS-PART 3



b6 -1  
b7C -1

2017-00469-1027-2017

RT: 10.00 - 17.00

2017-00469, 1, blood

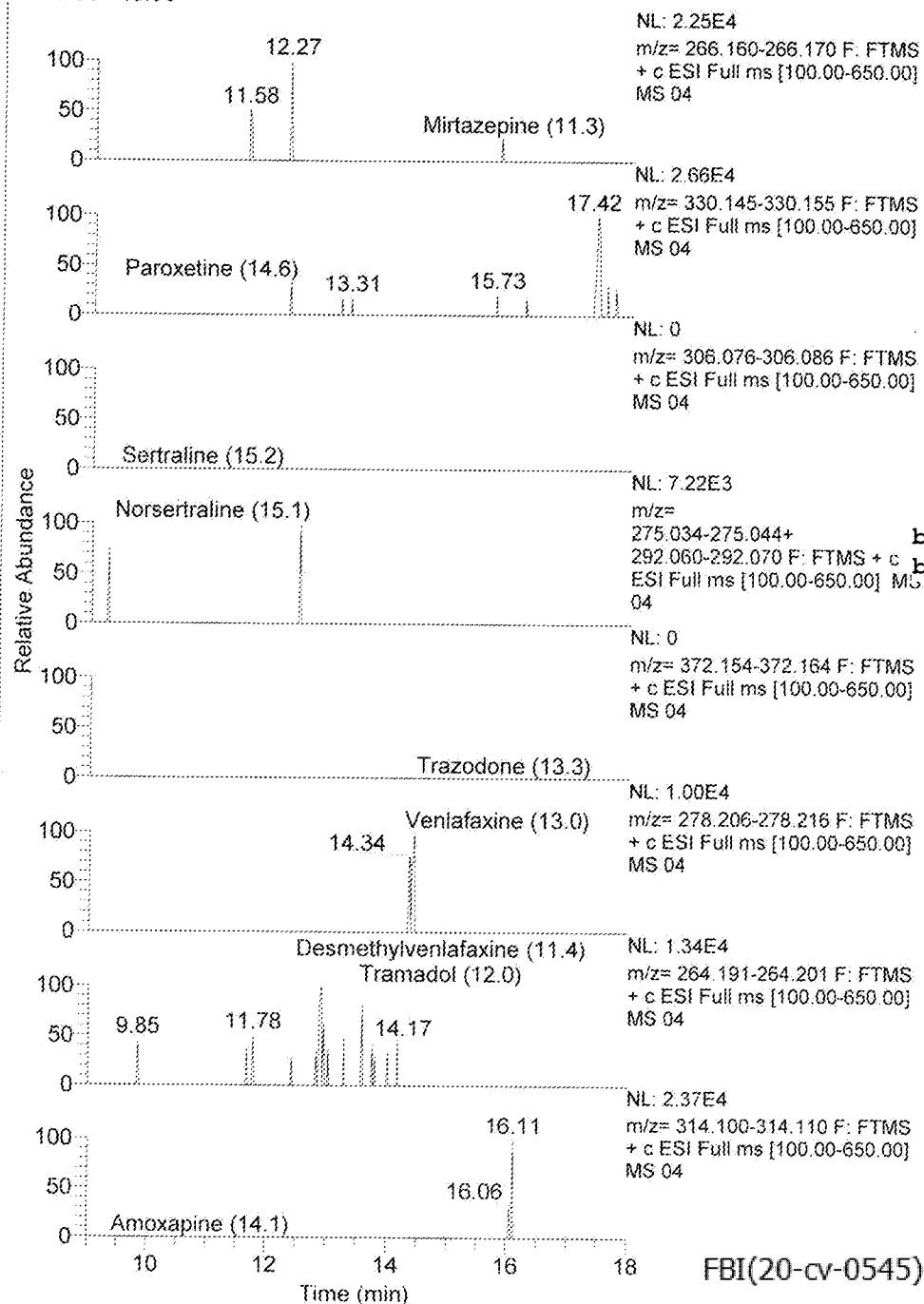
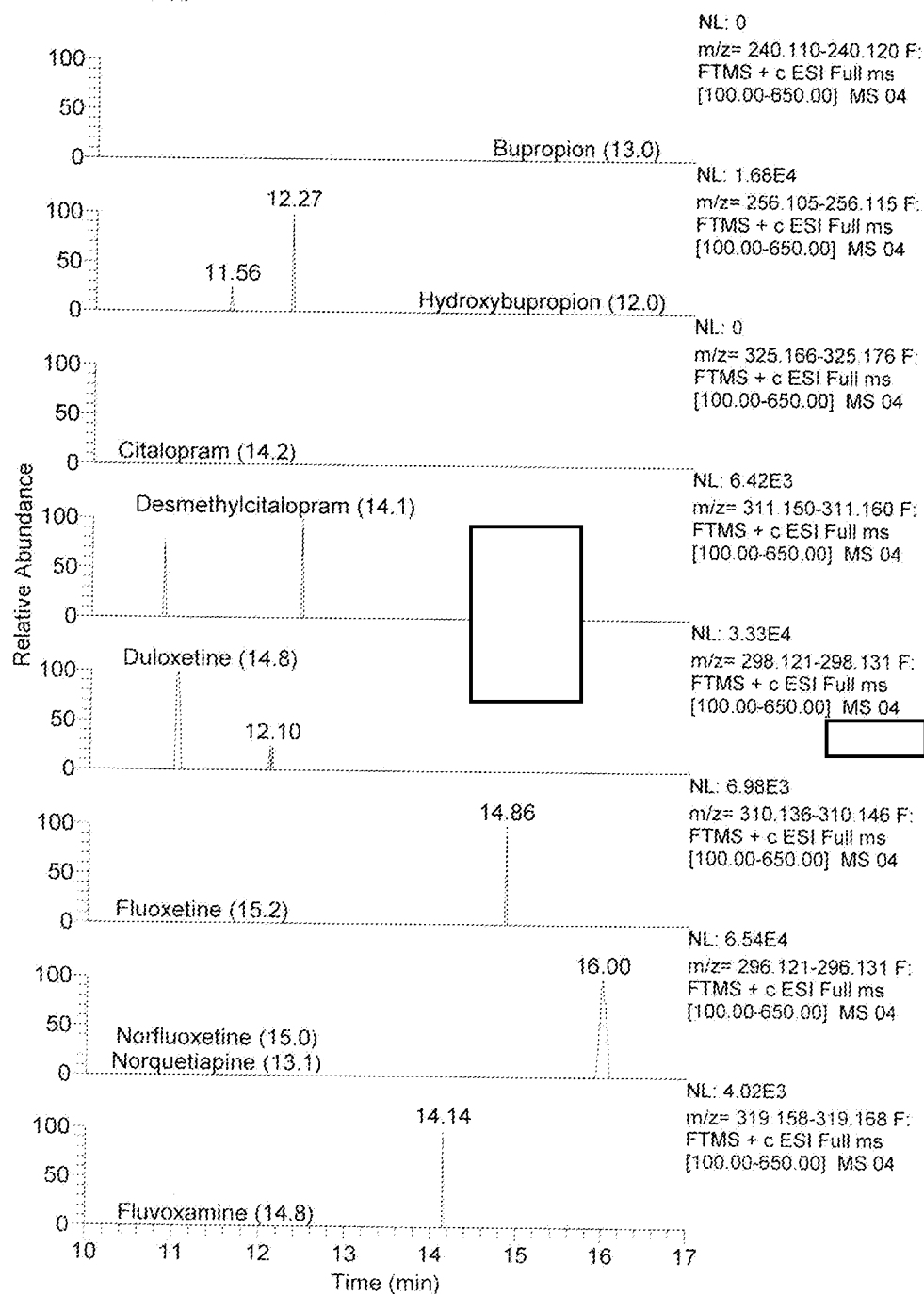
b7C -1

b7E -2

## LC-ESI-FTMS Data

## ANTIDEPRESSANTS

RT: 9.00 - 18.00



b7C -1

FBI(20-cv-0545)-1405

10/3/2017 2:52:57 PM

2017-00469, 1, blood

b6 -1

b7C -1

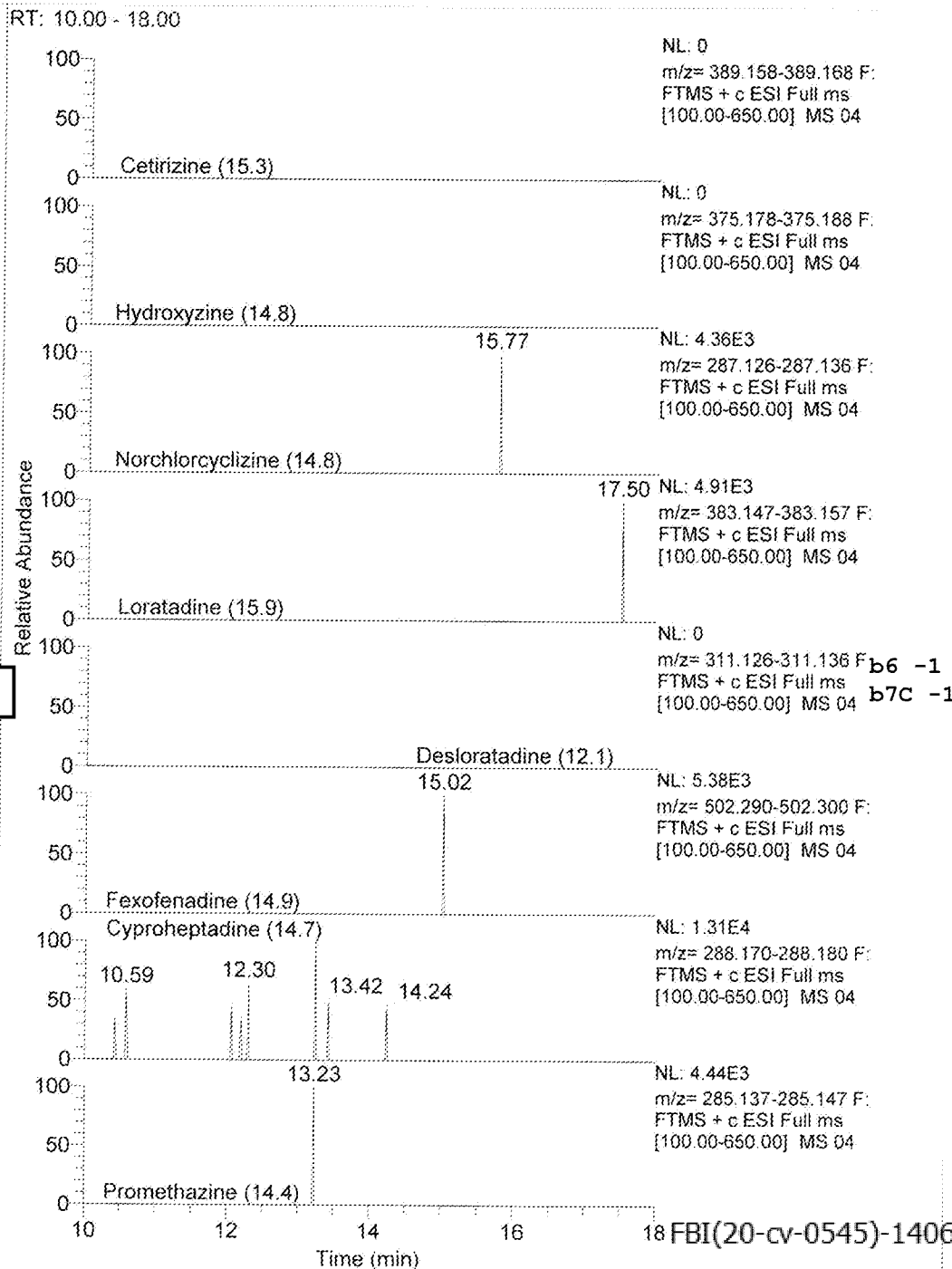
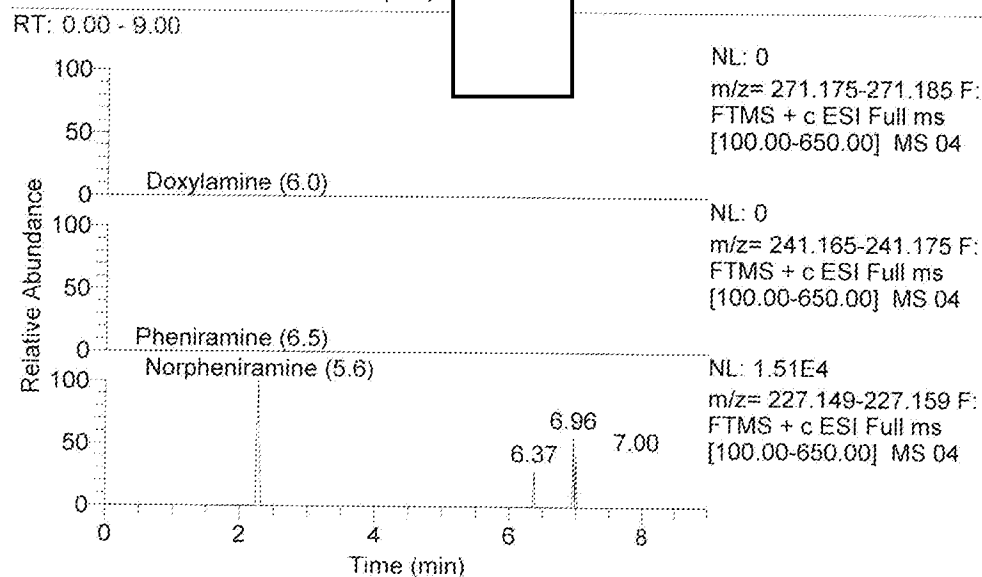
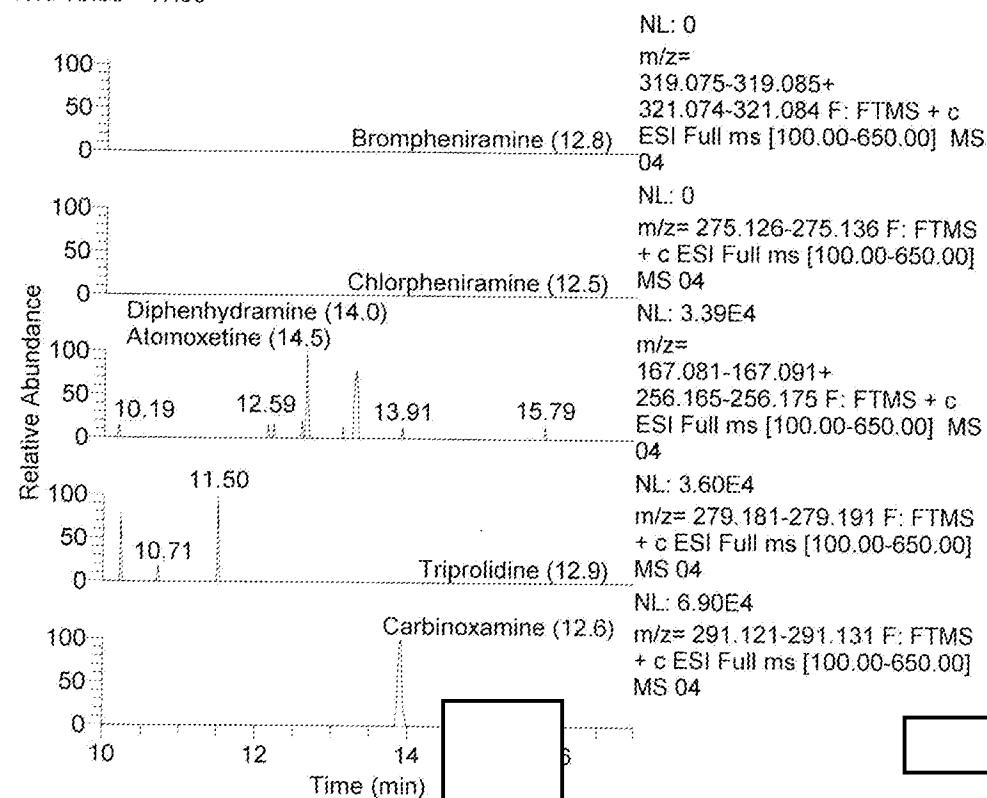
b7E -2

## Alkaline Drug Screen

RT: 10.00 - 17.00

## LC-ESI-FTMS Data

## ANTIHISTAMINES



b6 -1

b7C -1

FBI(20-cv-0545)-1406

10/3/2017 2:52:57 PM

2017-00469, 1, blood

b6 -1

b7C -1

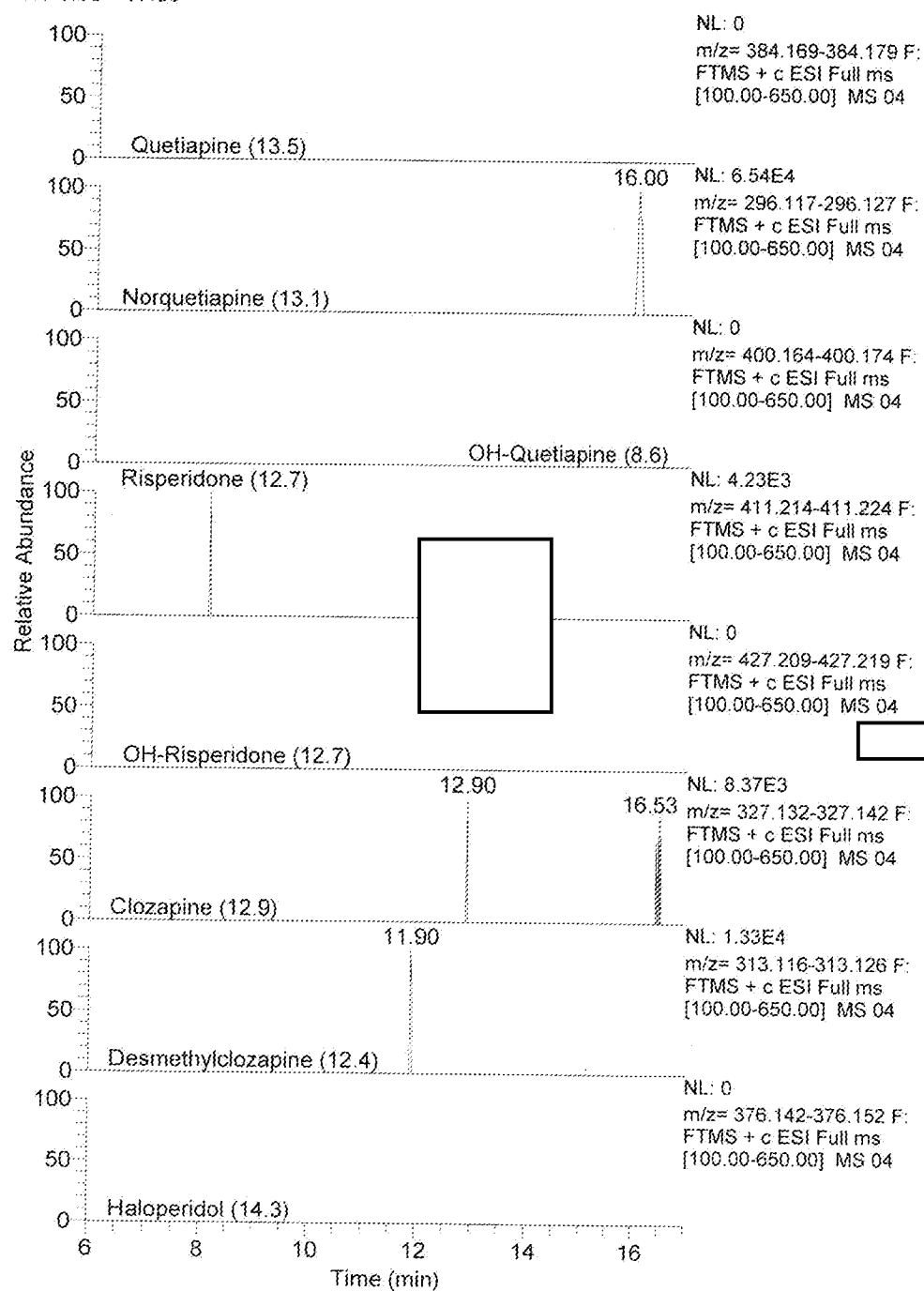
b7E -2

## Alkaline Drug Screen

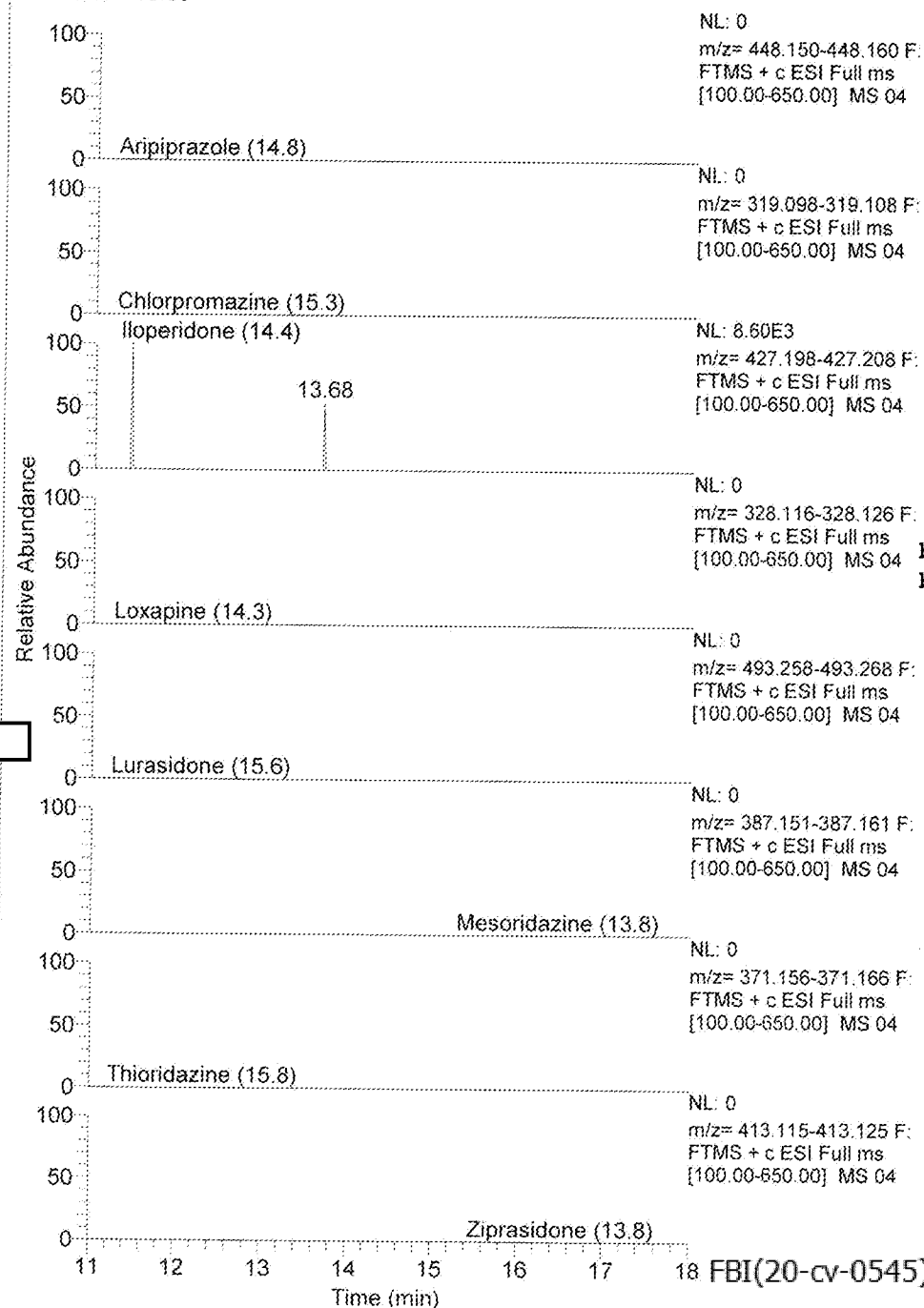
RT: 6.00 - 17.00

## LC-ESI-FTMS Data

## ANTIPSYCHOTICS



RT: 11.00 - 18.00



b6 -1

b7C -1

FBI(20-cv-0545)-1407

10/3/2017 2:52:57 PM

2017-00469, 1, blood

b6 -1

b7C -1

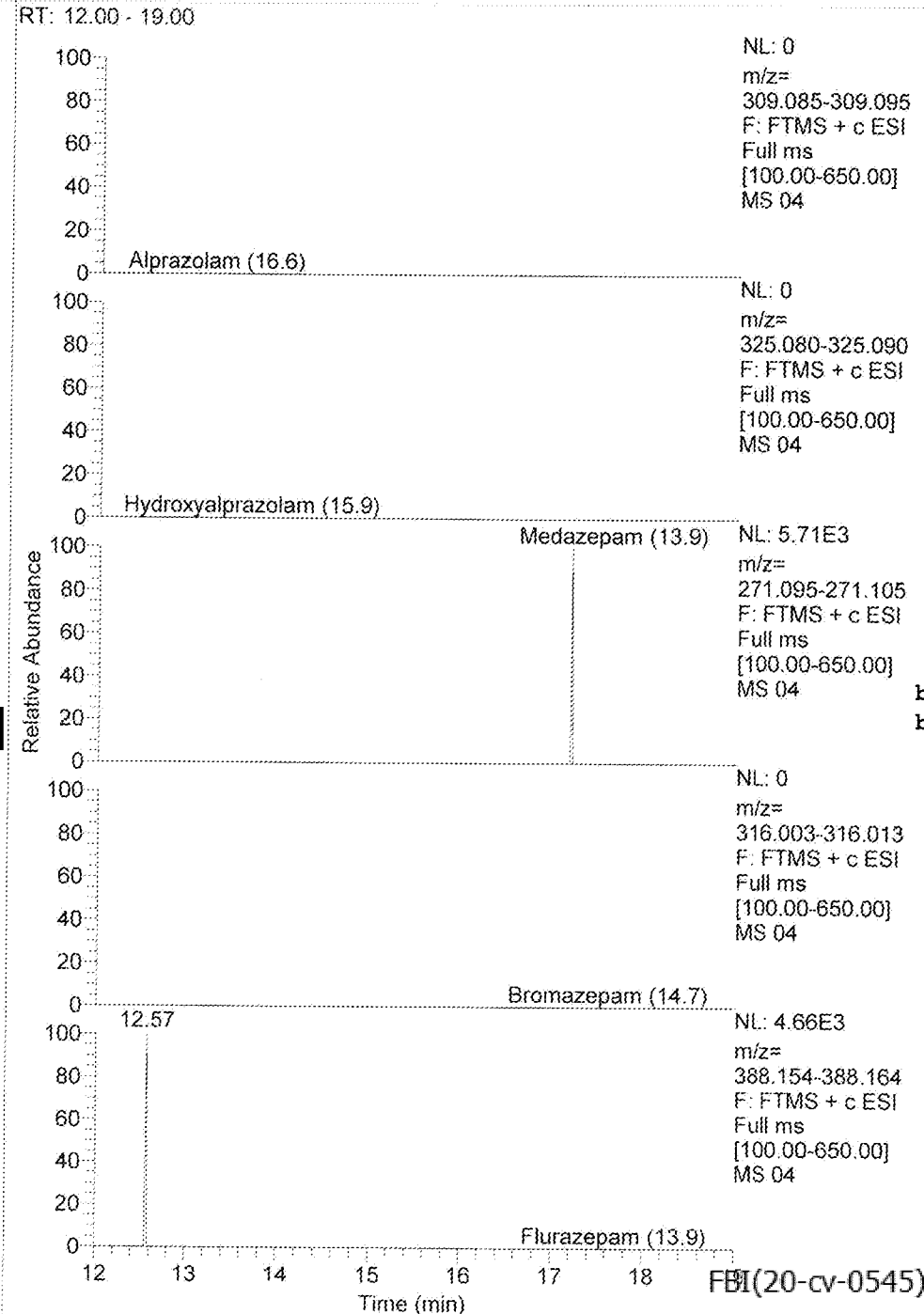
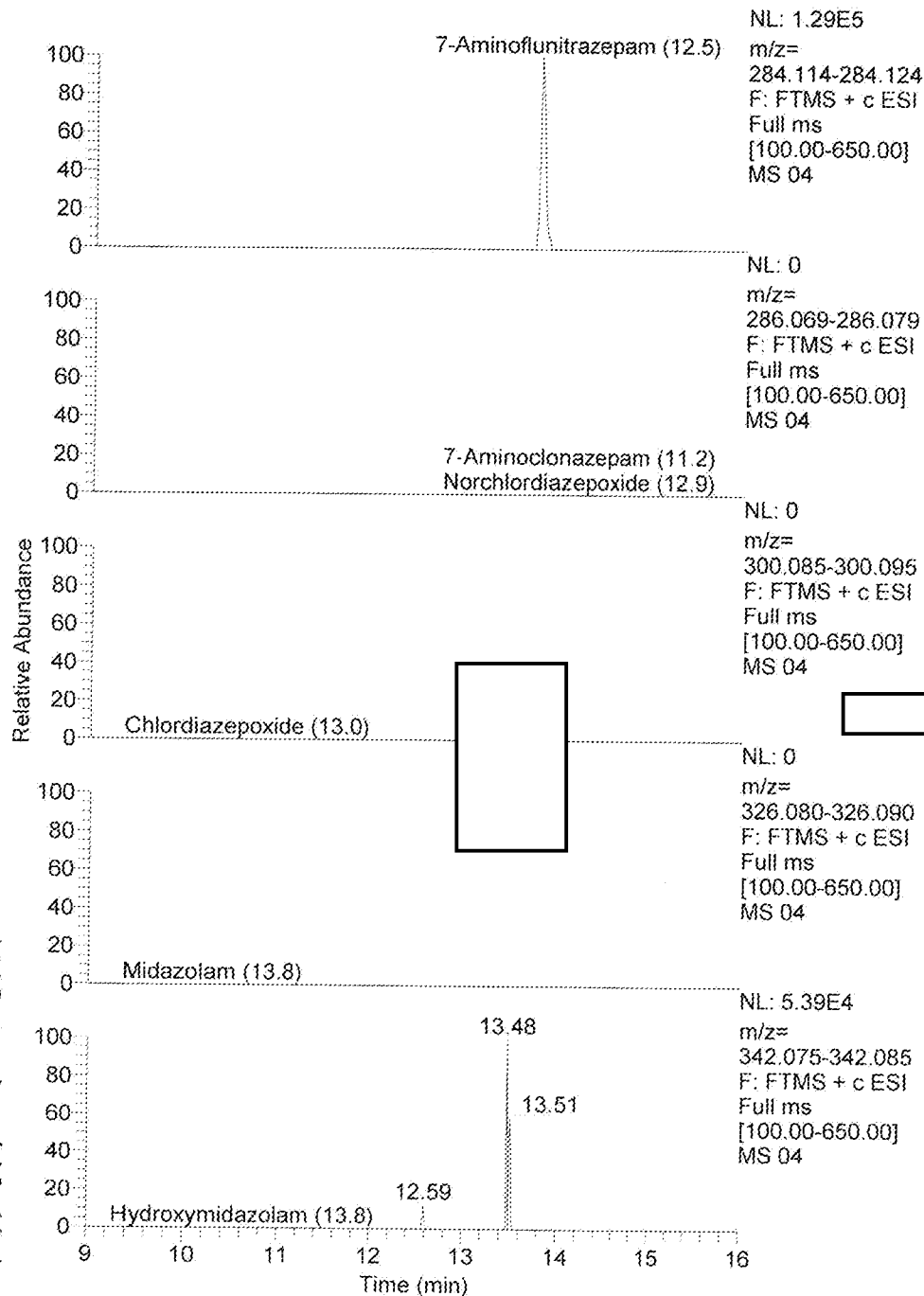
b7E -2

## Alkaline Drug Screen

RT: 9.00 - 16.00

## LC-ESI-FTMS Data

## BENZODIAZEPINES 1



FBI(20-cv-0545)-1408



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10/3/2017 2:52:57 PM

2017-00469, 1, blood

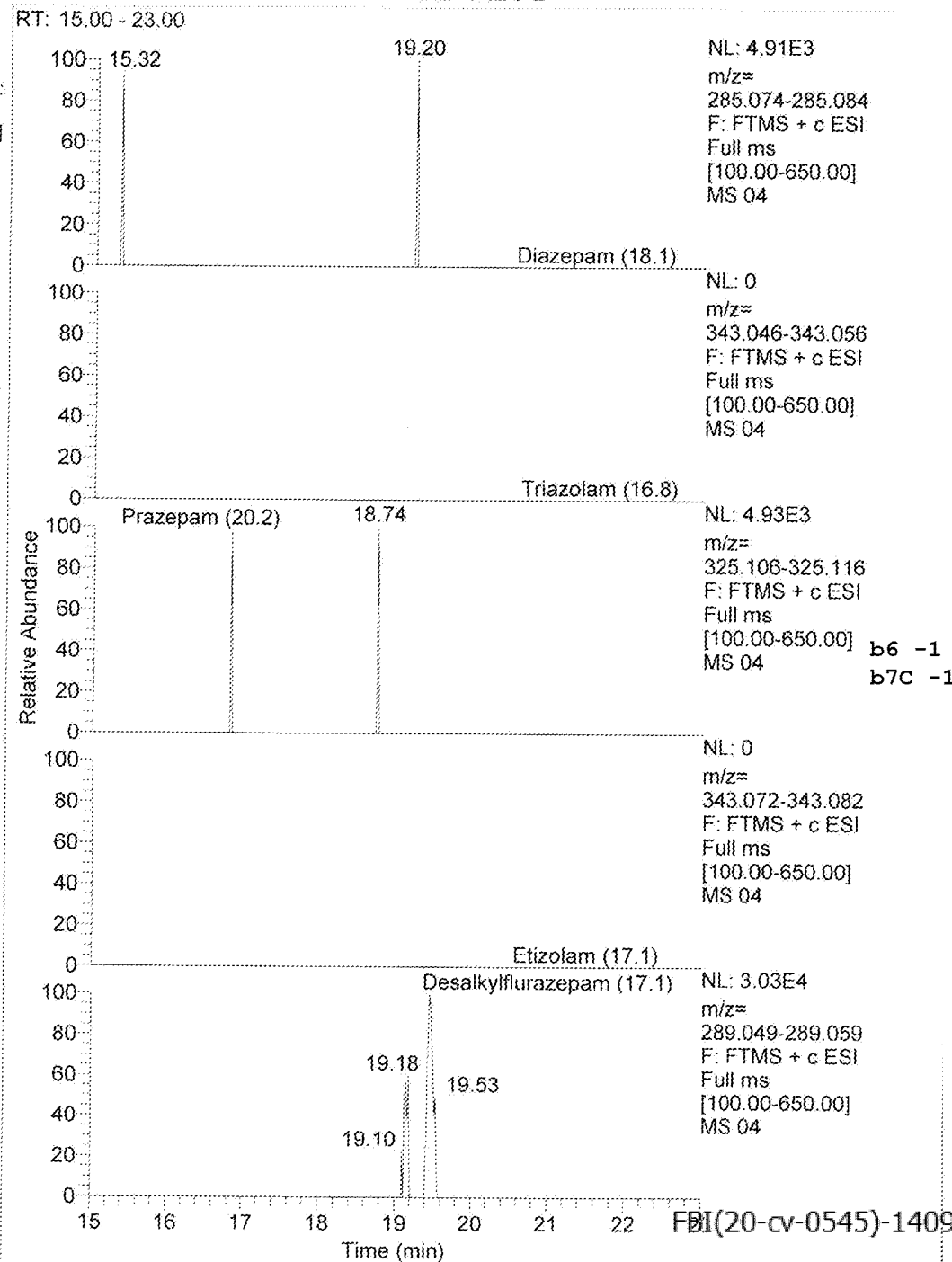
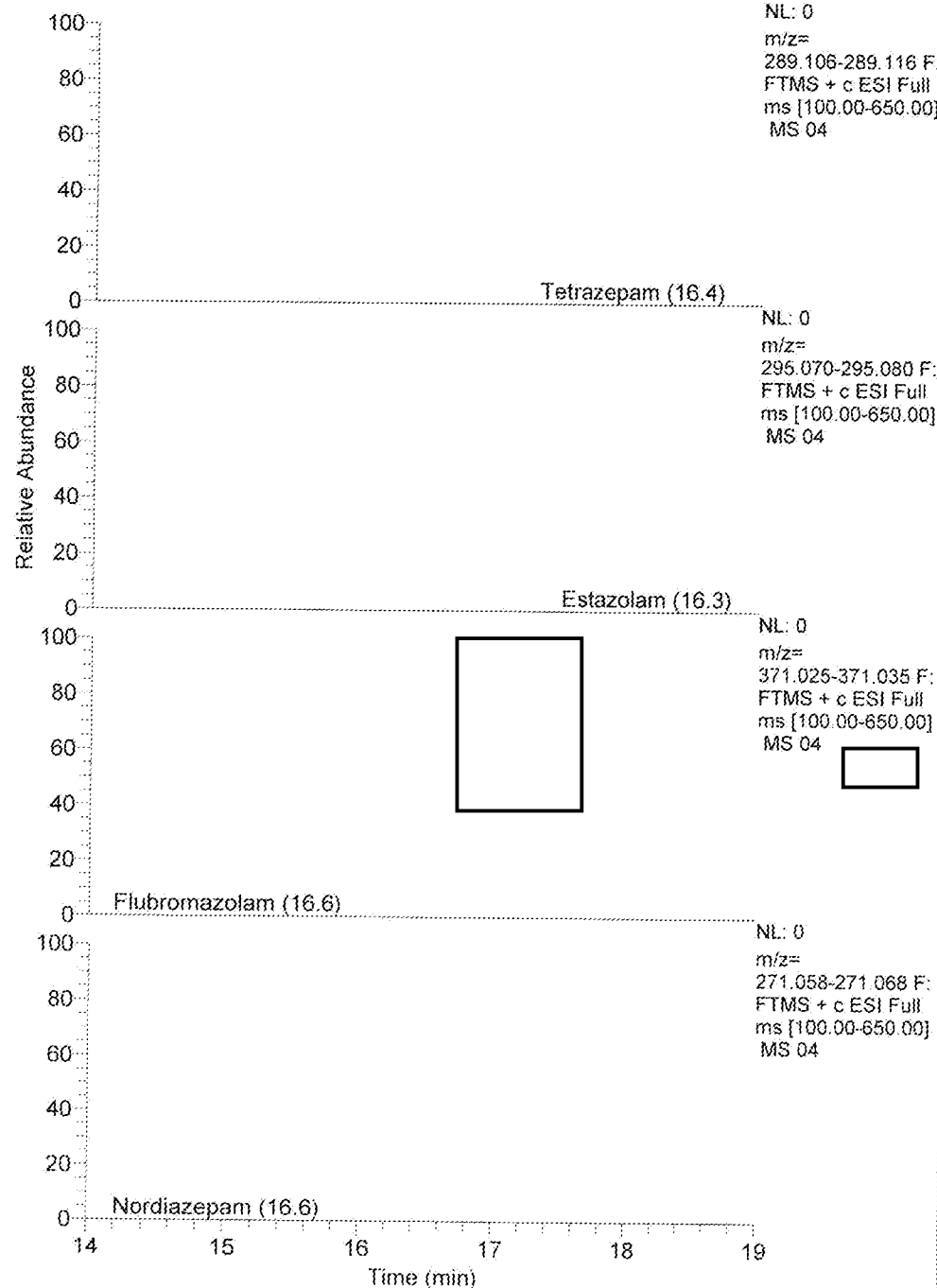
b6 -1  
b7C -1  
b7E -2

Alkaline Drug Screen

RT: 14.00 - 19.00

LC-ESI-FTMS Data

BENZODIAZEPINES 2



b6 -1  
b7C -1

FBI(20-cv-0545)-1409

10/3/2017 2:52:57 PM

2017-00469, 1, blood

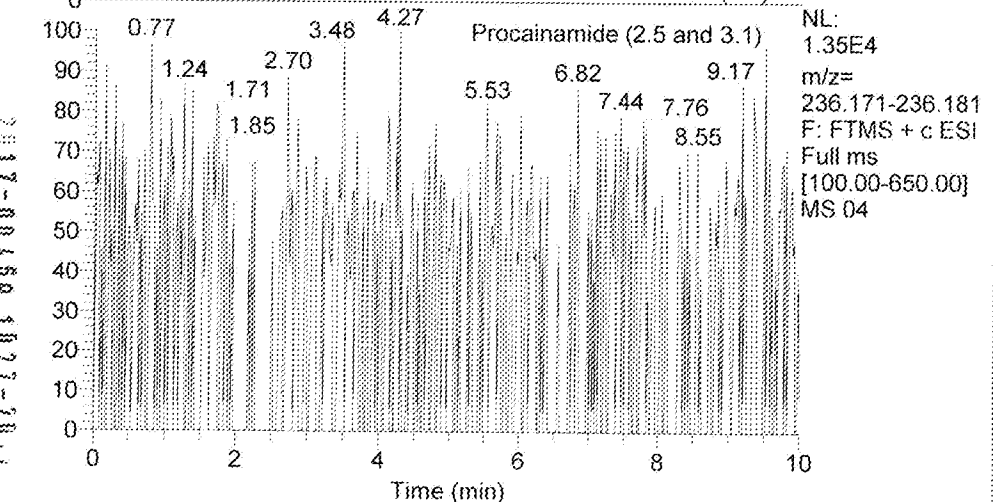
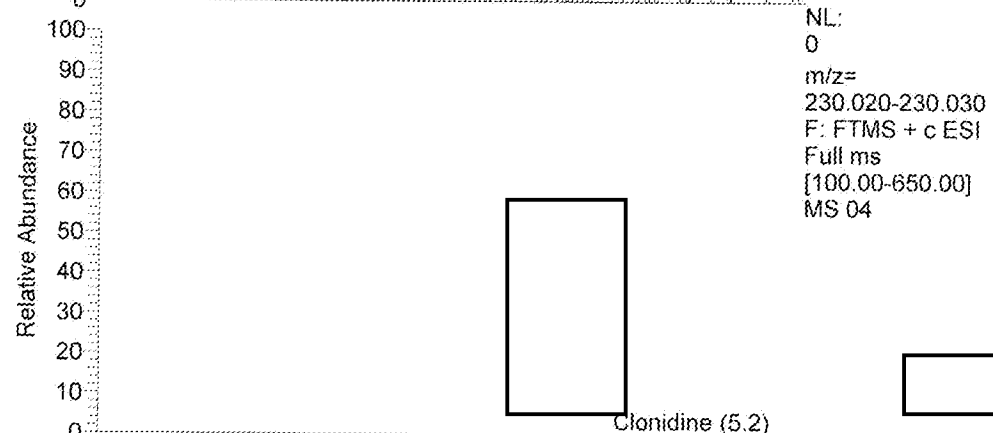
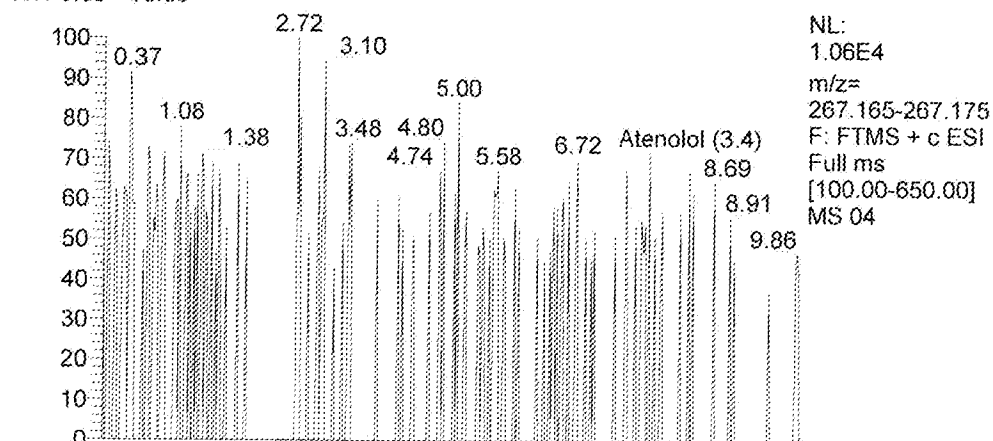
b6 -1

b7C -1

b7E -2

## Alkaline Drug Screen

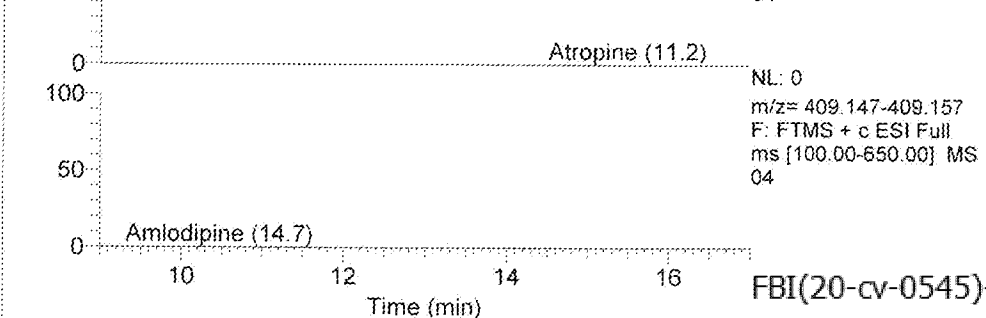
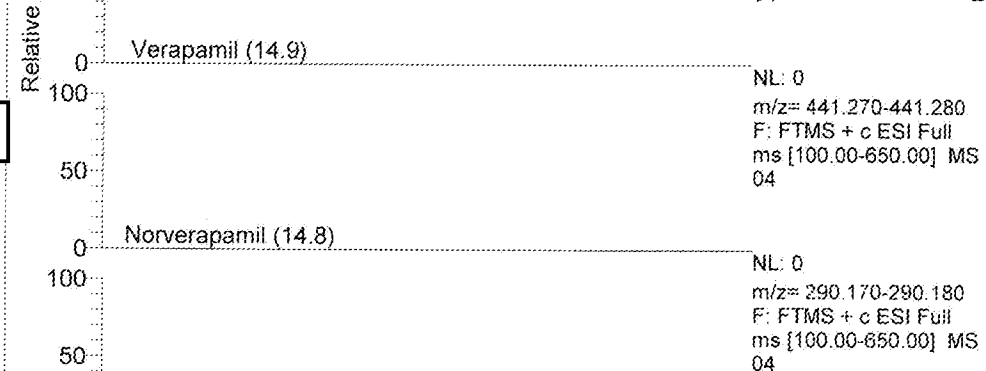
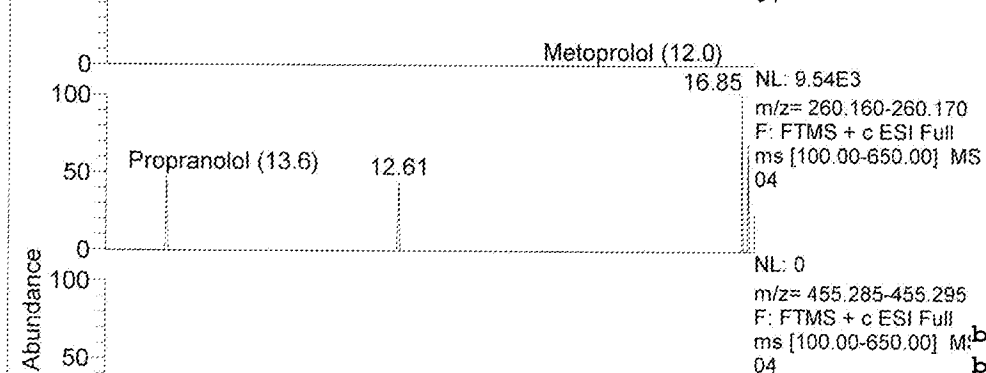
RT: 0.00 - 10.00



## LC-ESI-FTMS Data

RT: 9.00 - 17.00

## CARDIAC DRUGS



b6 -1

b7C -1

FBI(20-cv-0545)-1410

10/3/2017 2:52:57 PM

2017-00469, 1, blood

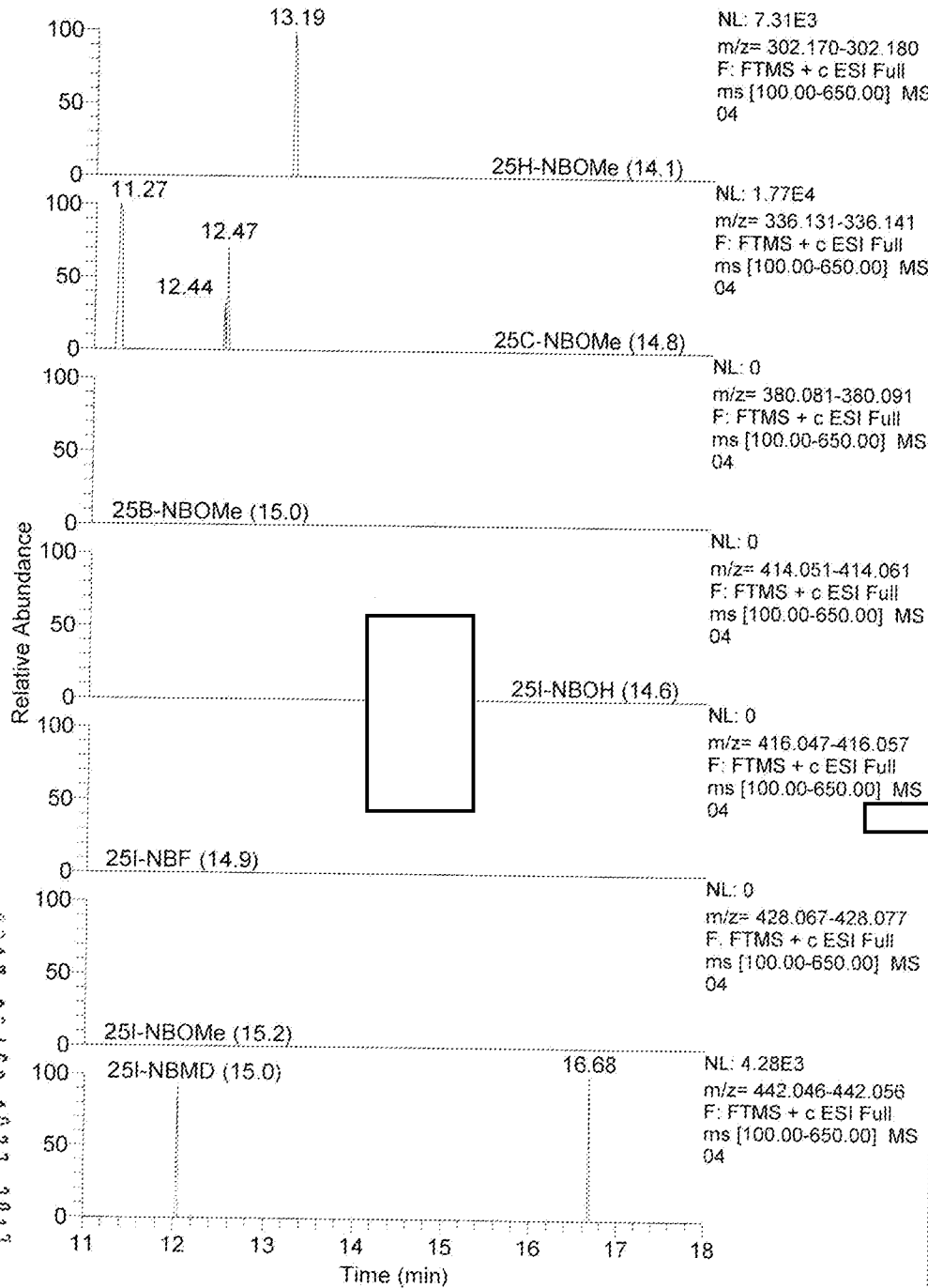
b6 -1

b7C -1

b7E -2

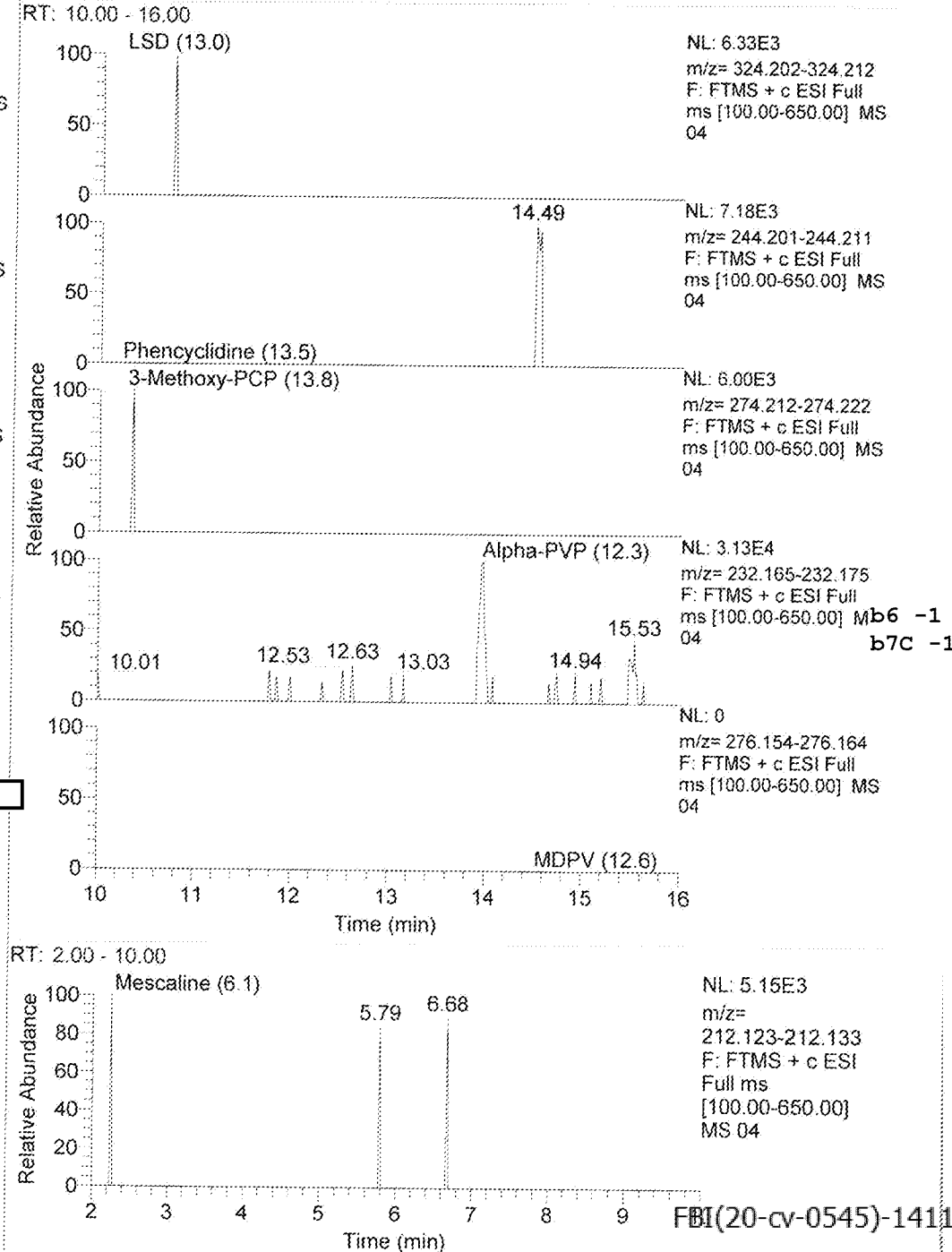
## Alkaline Drug Screen

RT: 11.00 - 18.00



## LC-ESI-FTMS Data

## HALLUCINOGENS



2017-00469-1027-2017

FBI(20-cv-0545)-1411

[Redacted]

10/3/2017 2:52:57 PM

2017-00469, 1, blood

b6 -1

b7C -1

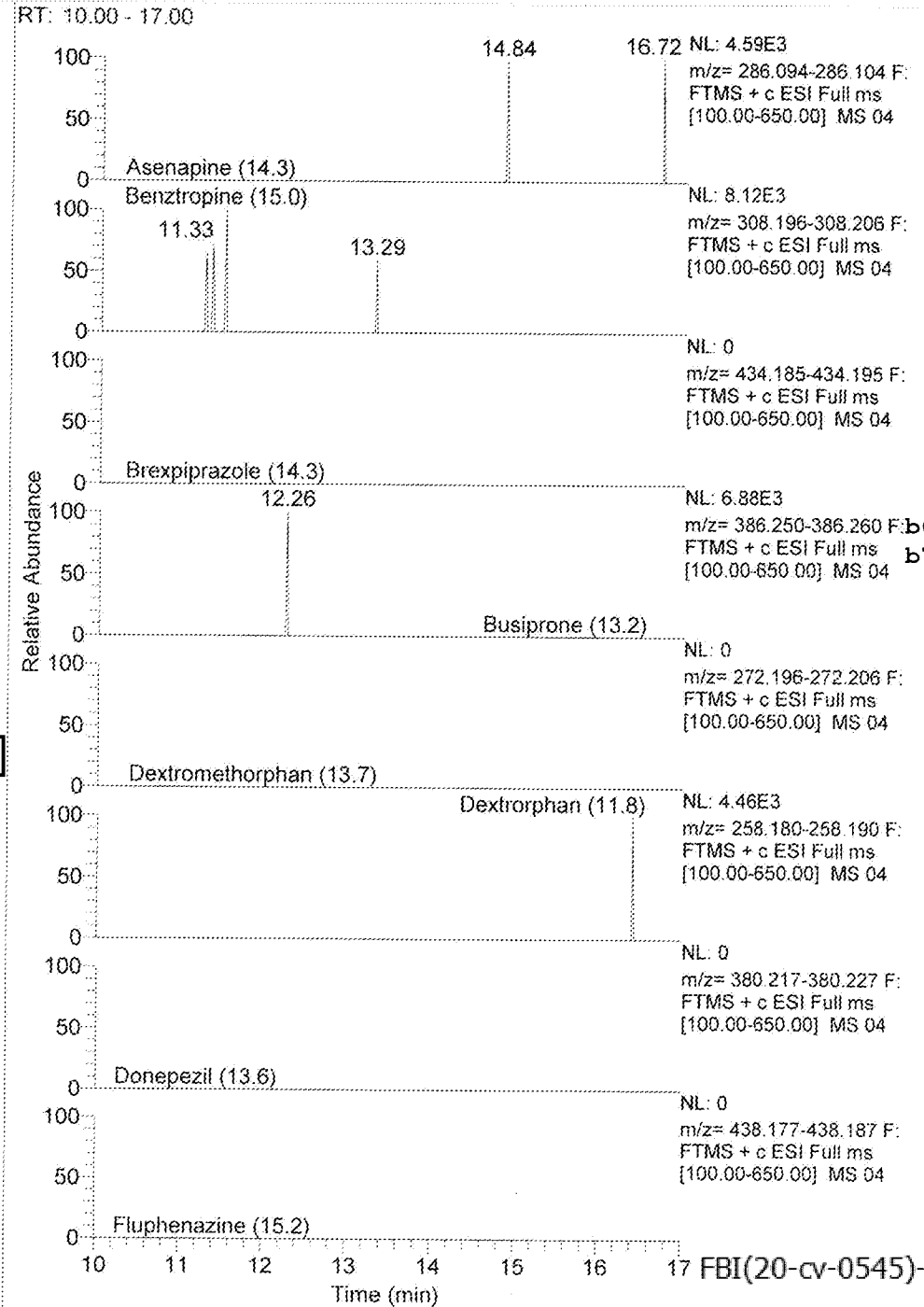
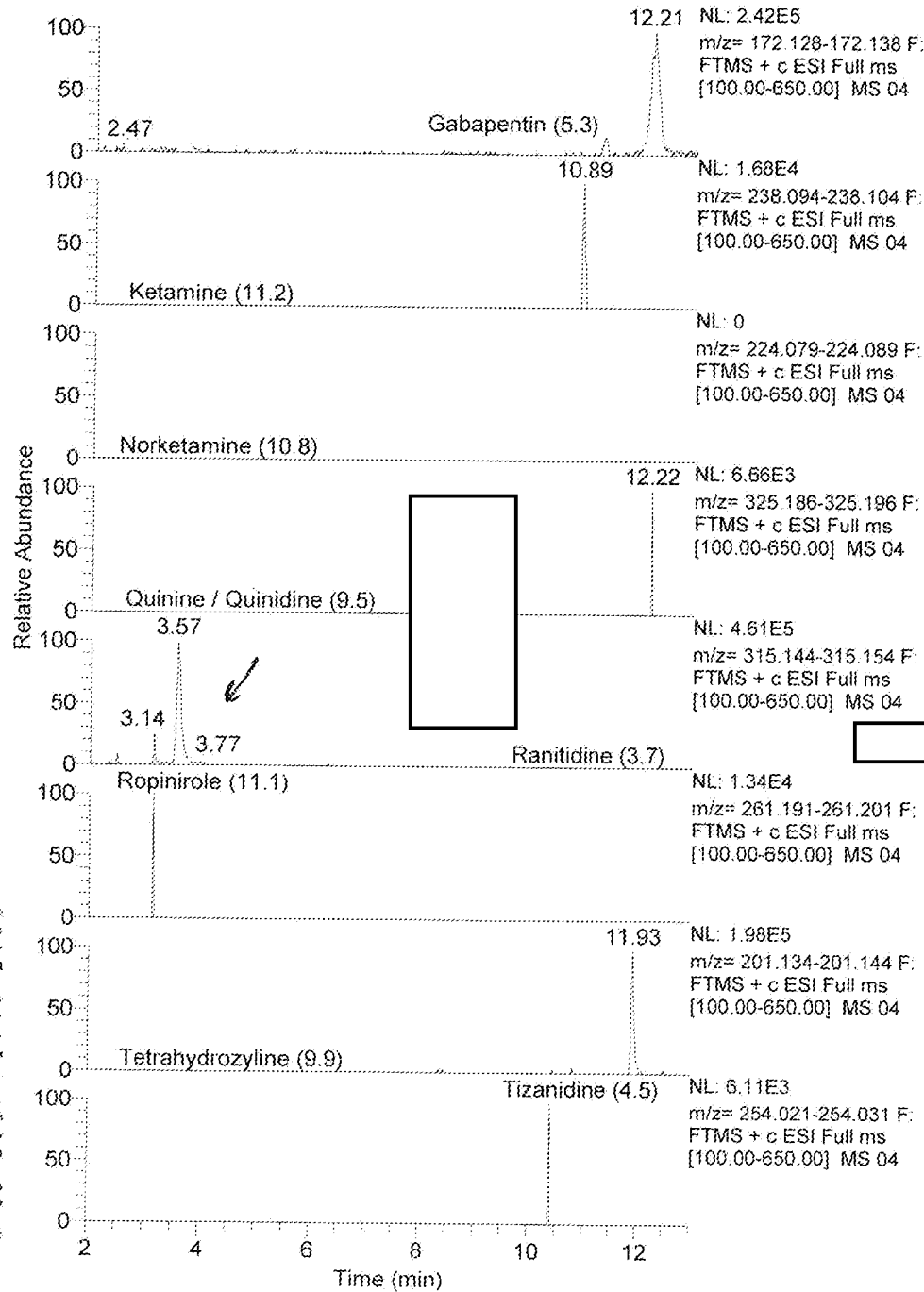
b7E -2

Alkaline Drug Screen

RT: 2.00 - 13.00

LC-ESI-FTMS Data

MISCELLANEOUS 1



b6 -1

b7C -1

2017-00469-1027-2017

10/3/2017 2:52:57 PM

2017-00469, 1, blood

b6 -1

b7C -1

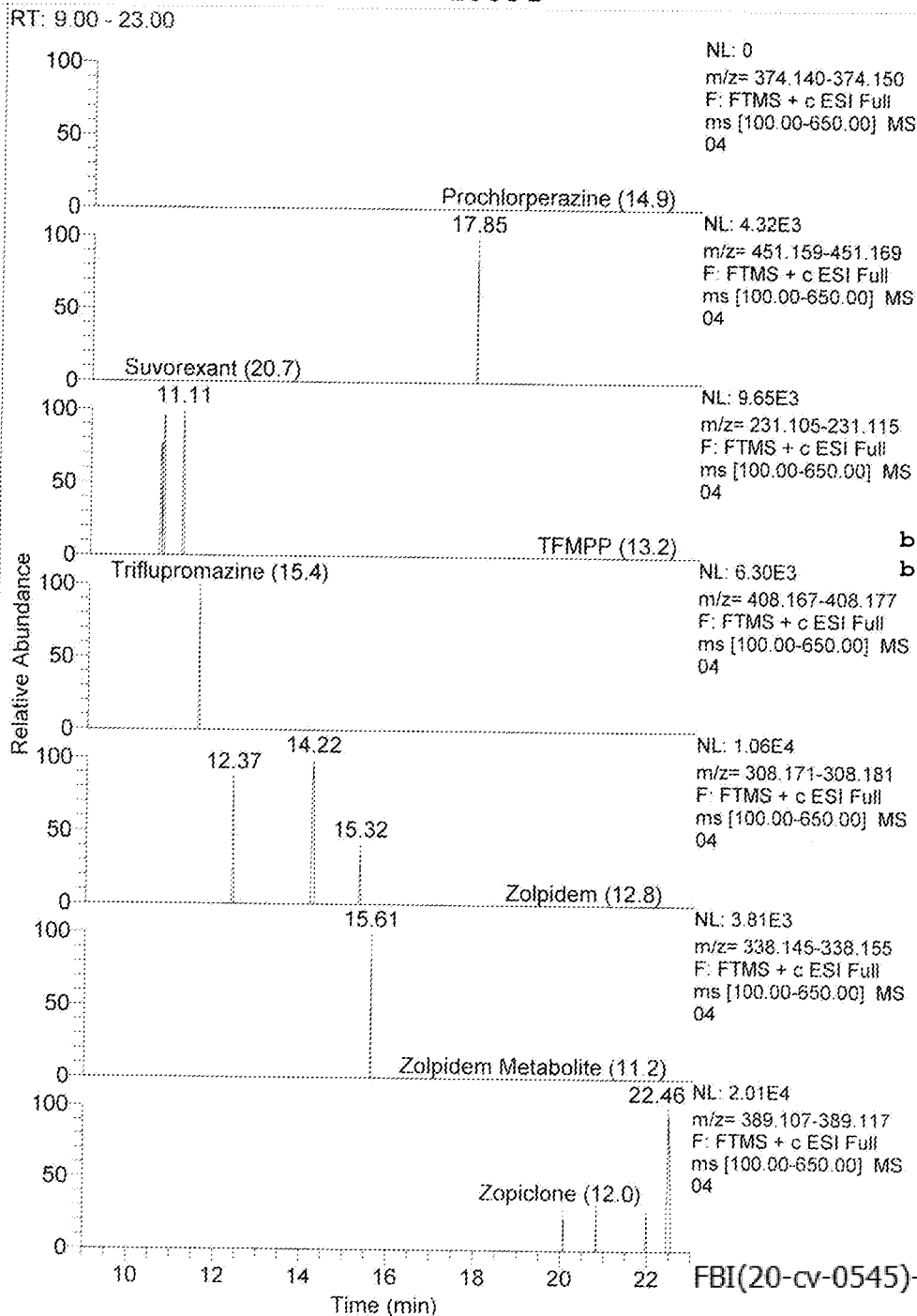
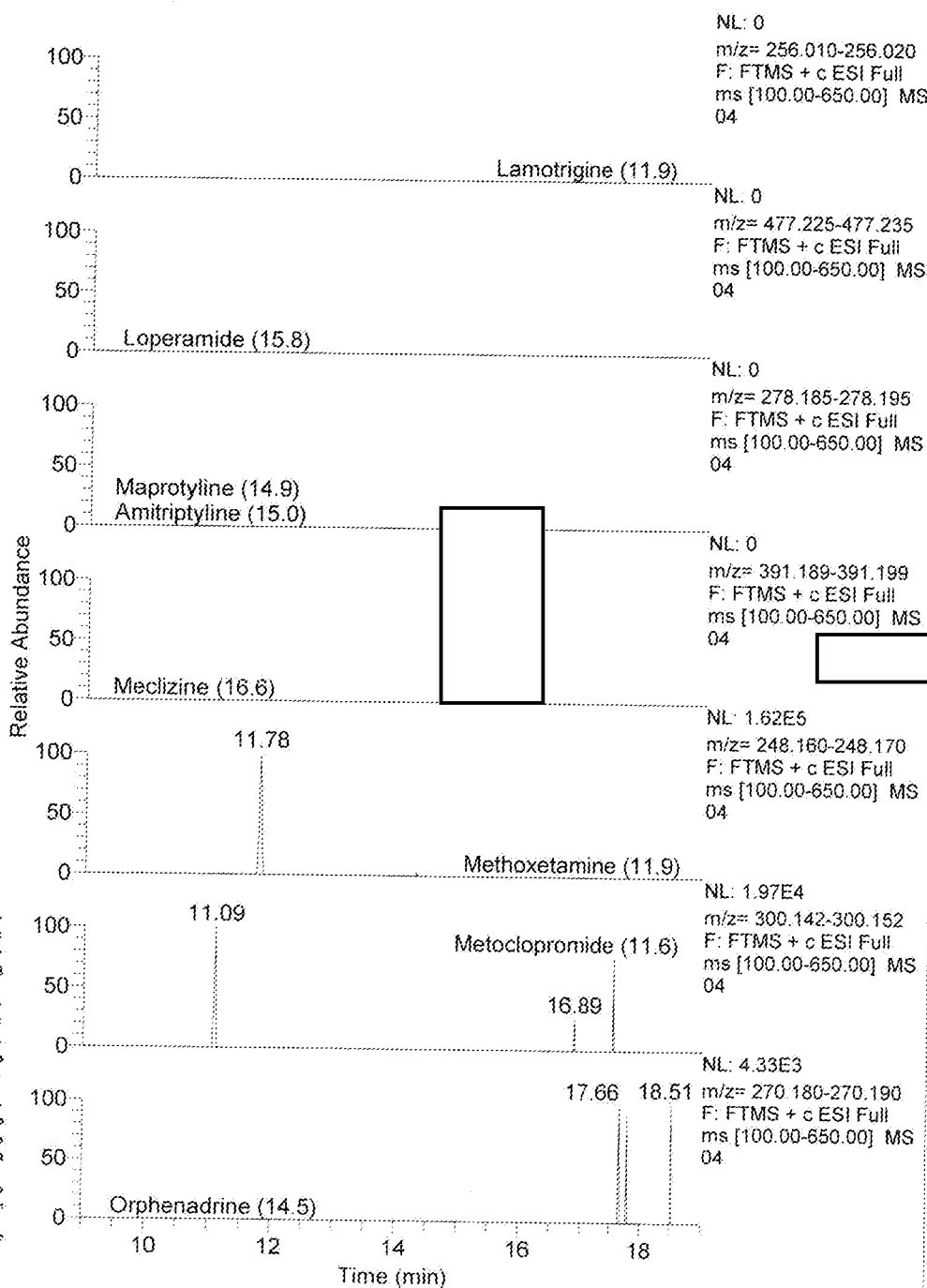
b7E -2

## Alkaline Drug Screen

RT: 9.00 - 19.00

## LC-ESI-FTMS Data

## MISCELLANEOUS 2



b6 -1

b7C -1

FBI(20-cv-0545)-1413

[Redacted]

10/3/2017 2:52:57 PM

2017-00469, 1, blood

b6 -1

b7C -1

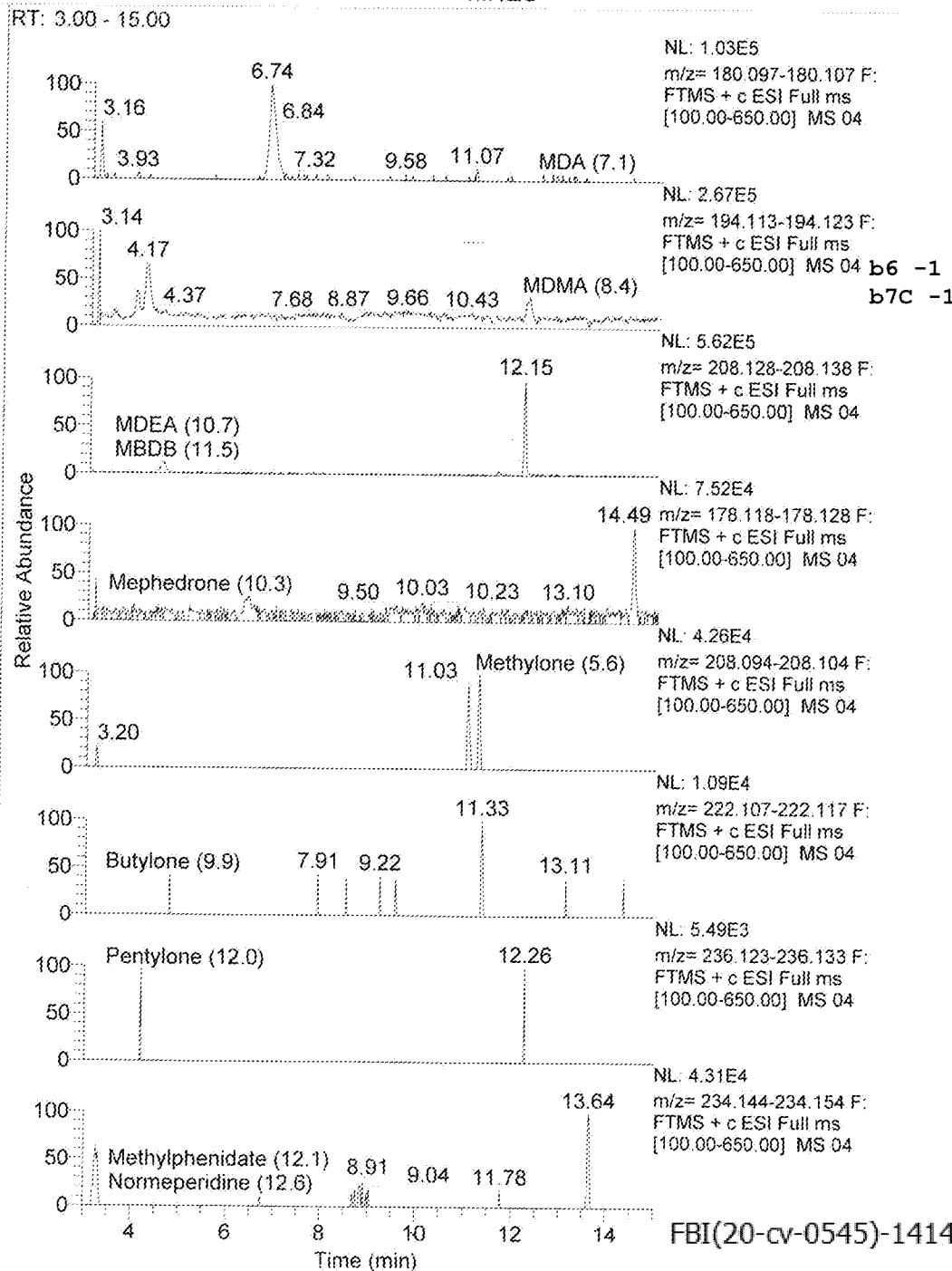
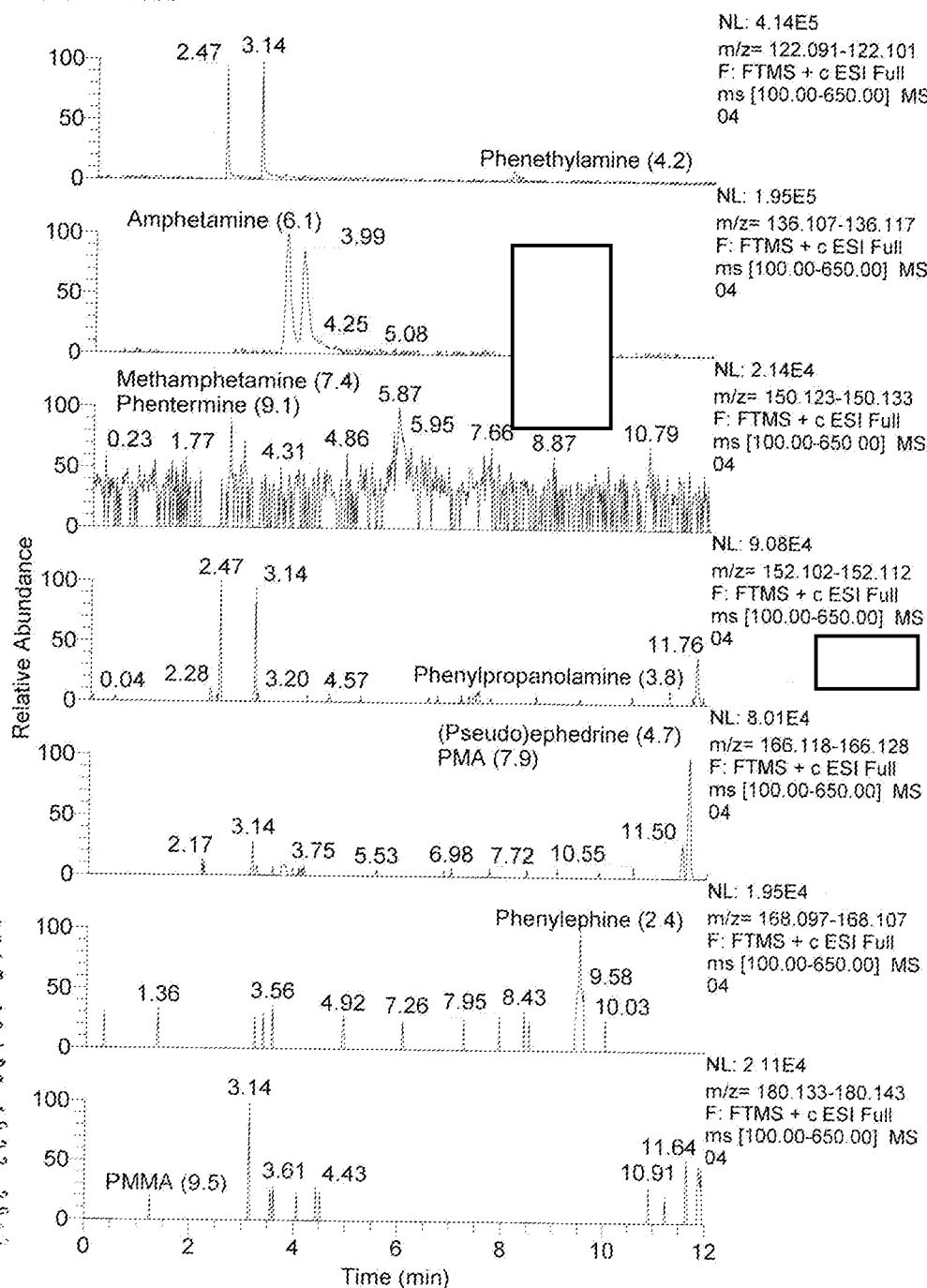
b7E -2

Alkaline Drug Screen

RT: 0.00 - 12.00

LC-ESI-FTMS Data

PHENETHYLAMINES



2017-00469-1027-2017

FBI(20-cv-0545)-1414

10/3/2017 2:52:57 PM

2017-00469, 1, blood

b6 -1

b7C -1

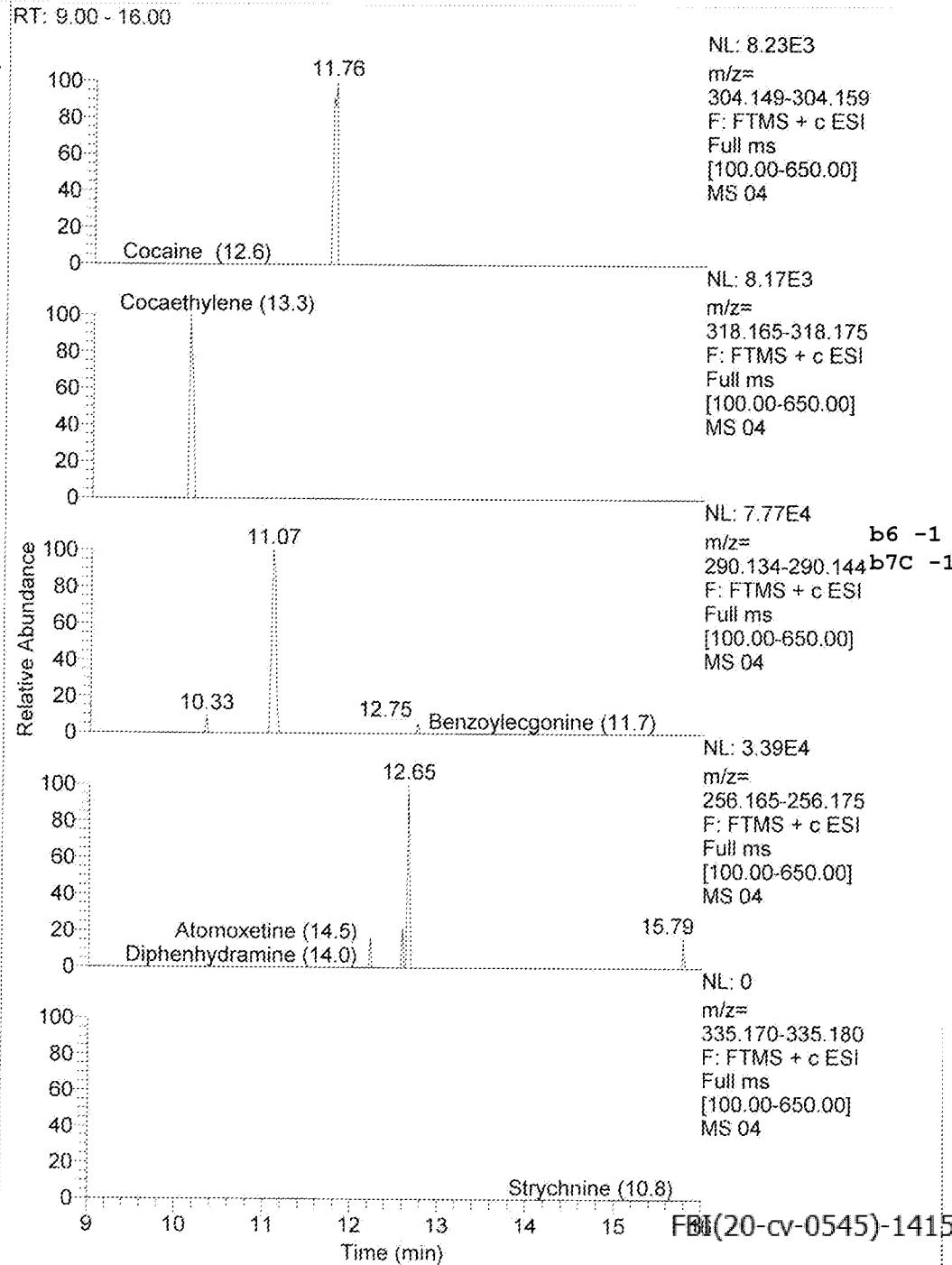
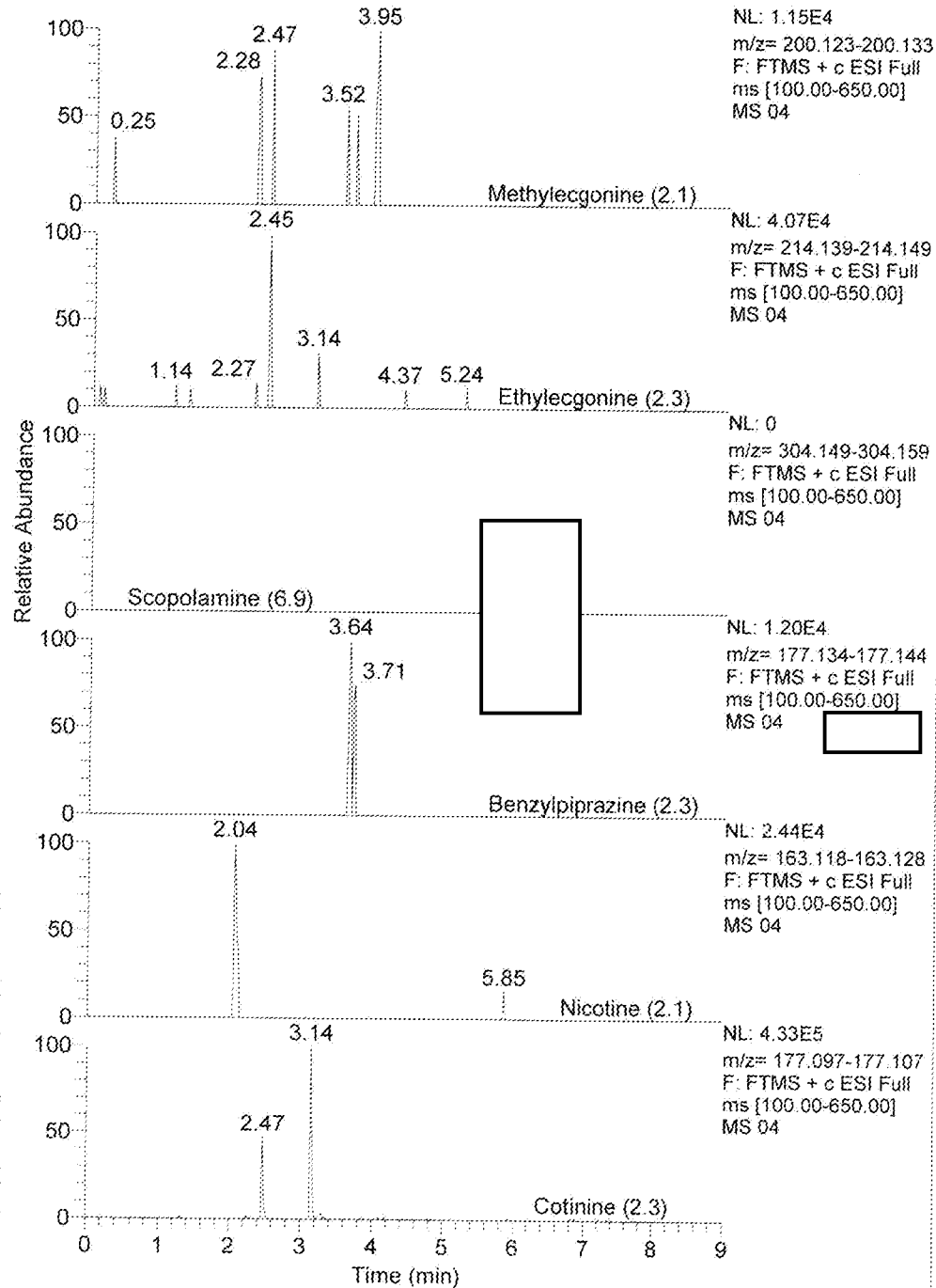
b7E -2

## Alkaline Drug Screen

RT: 0.00 - 9.00

## LC-ESI-FTMS Data

## STIMULANTS



b6 -1

b7C -1

[Redacted]

10/3/2017 2:52:57 PM

2017-00469, 1, blood

b6 -1

b7C -1

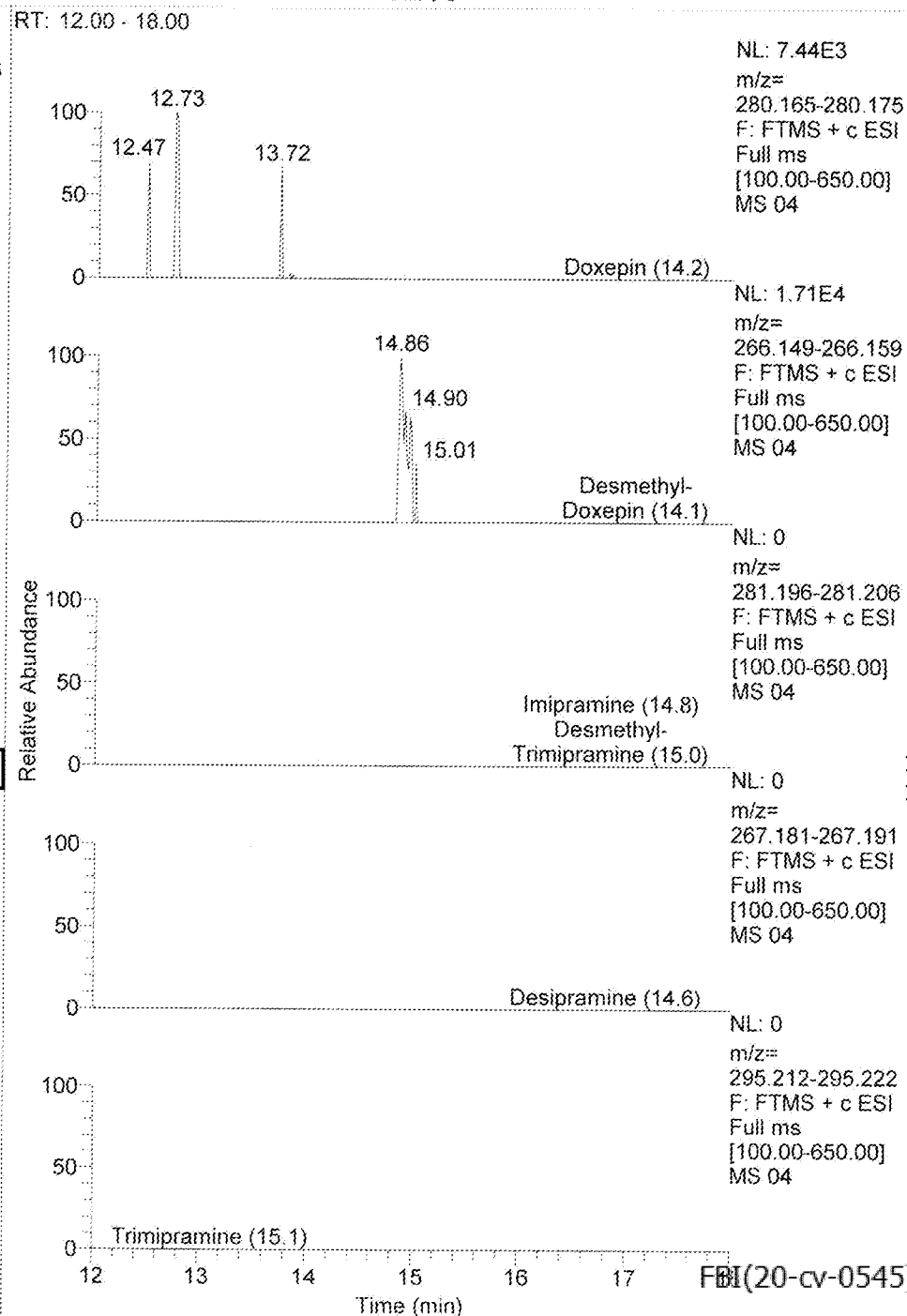
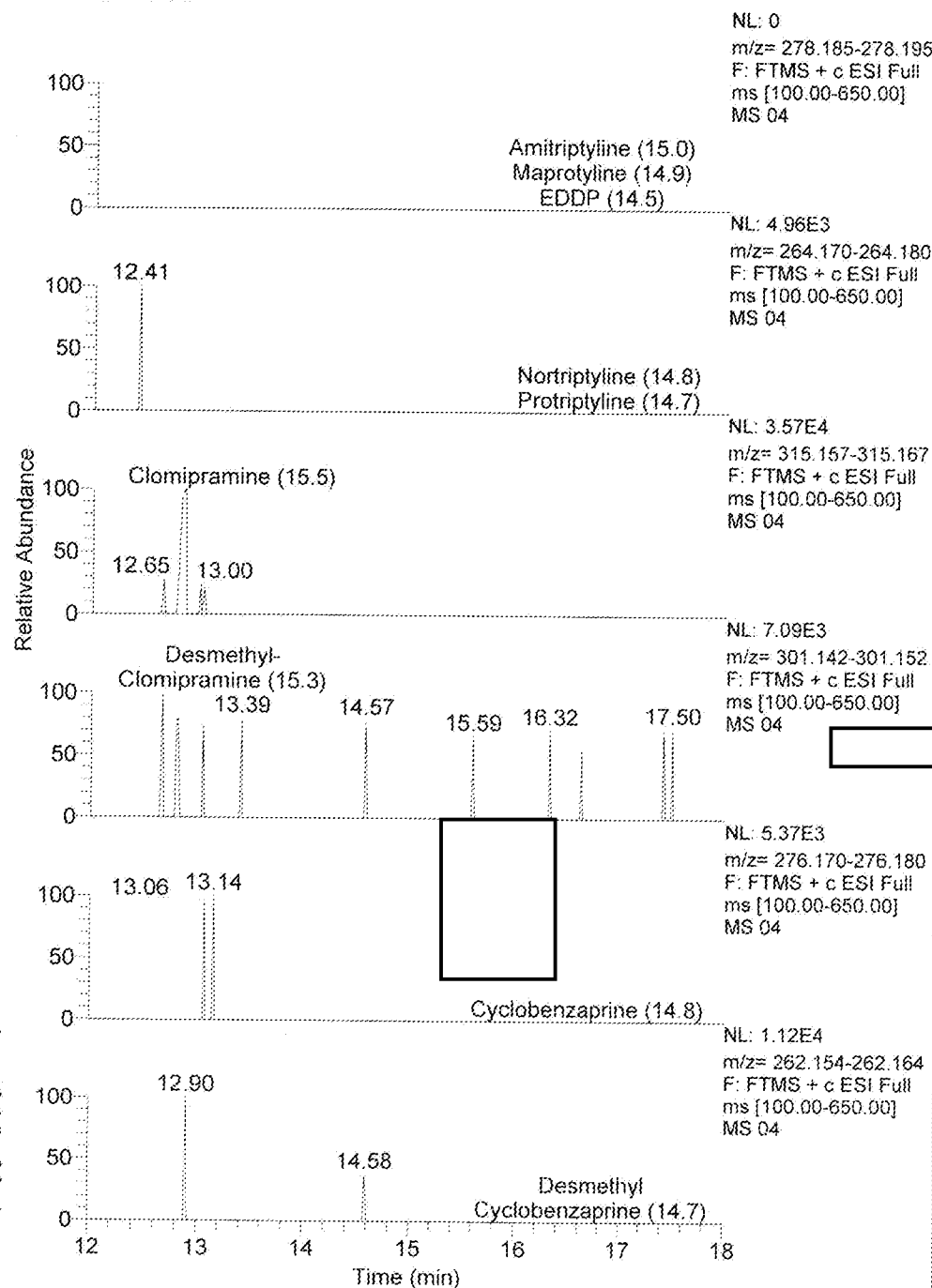
b7E -2

Alkaline Drug Screen

RT: 12.00 - 18.00

LC-ESI-FTMS Data

TRICYCLICS



b6 -1

b7C -1

FBI(20-cv-0545)-1416



10/3/2017 1:37:27 PM

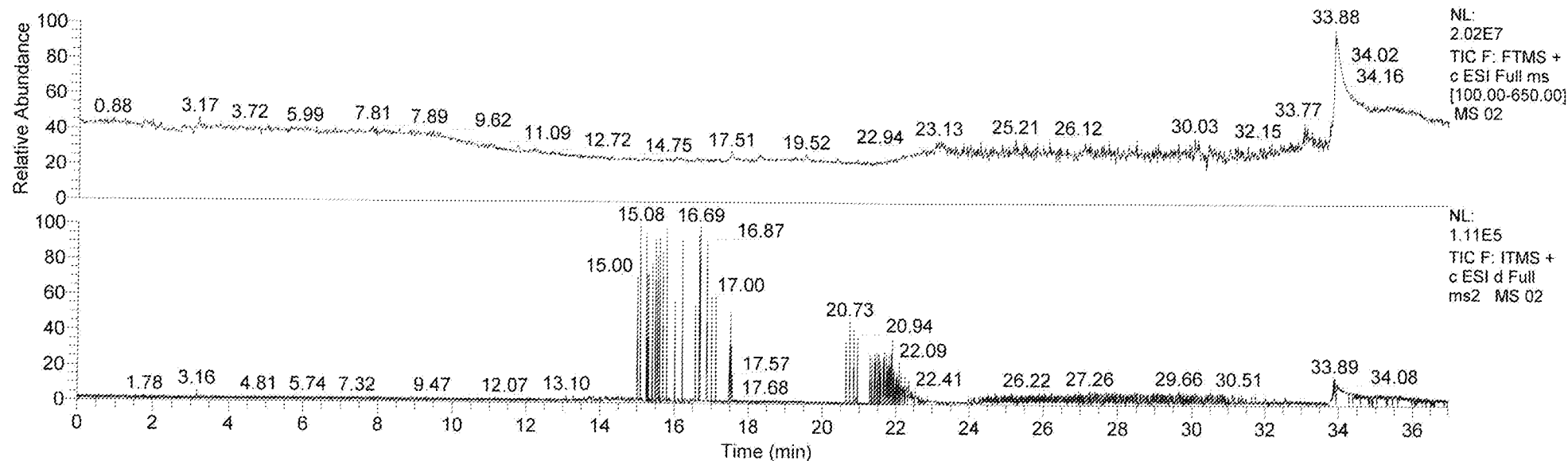
sb

b6 -1

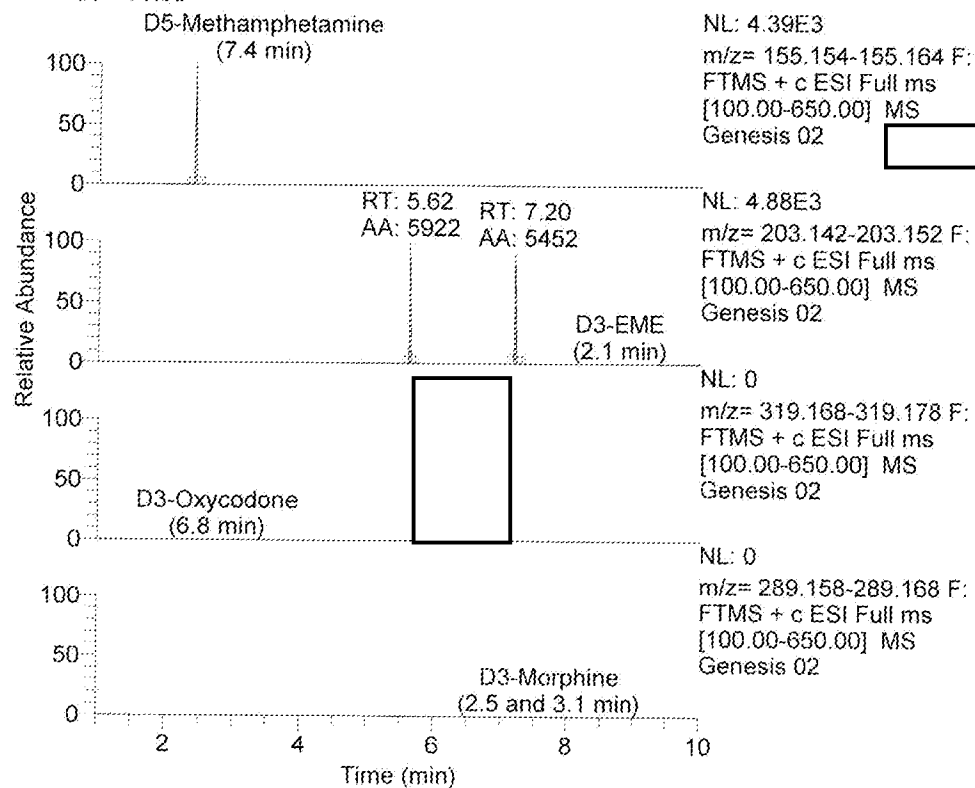
b7C -1

b7E -2

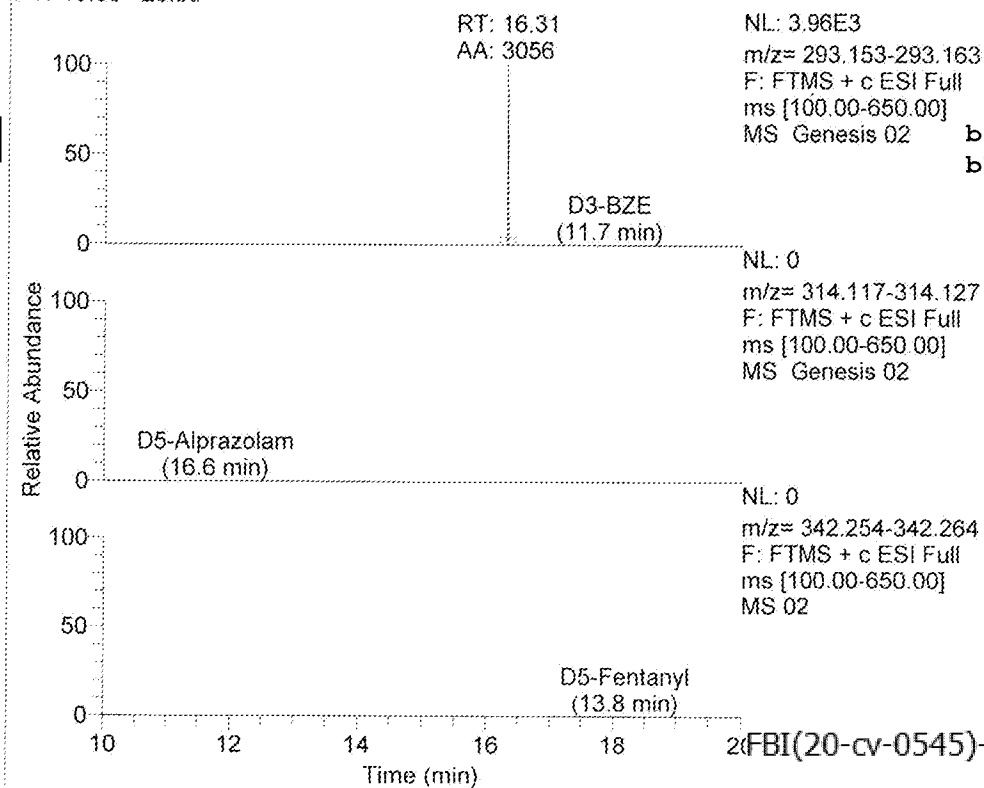
RT: 0.00 - 37.00



RT: 1.00 - 10.00



RT: 10.00 - 20.00



b6 -1

b7C -1

2(FBI(20-cv-0545)-1417

10/3/2017 4:08:21 PM

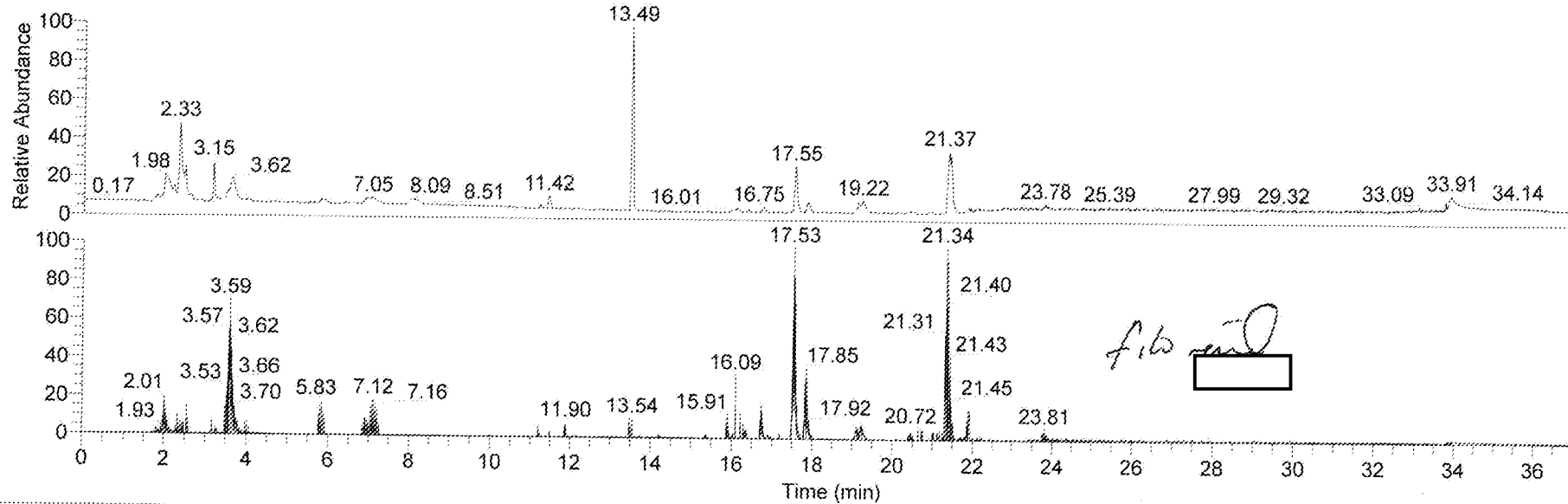
2017-00469, 3, blood

b6 -1

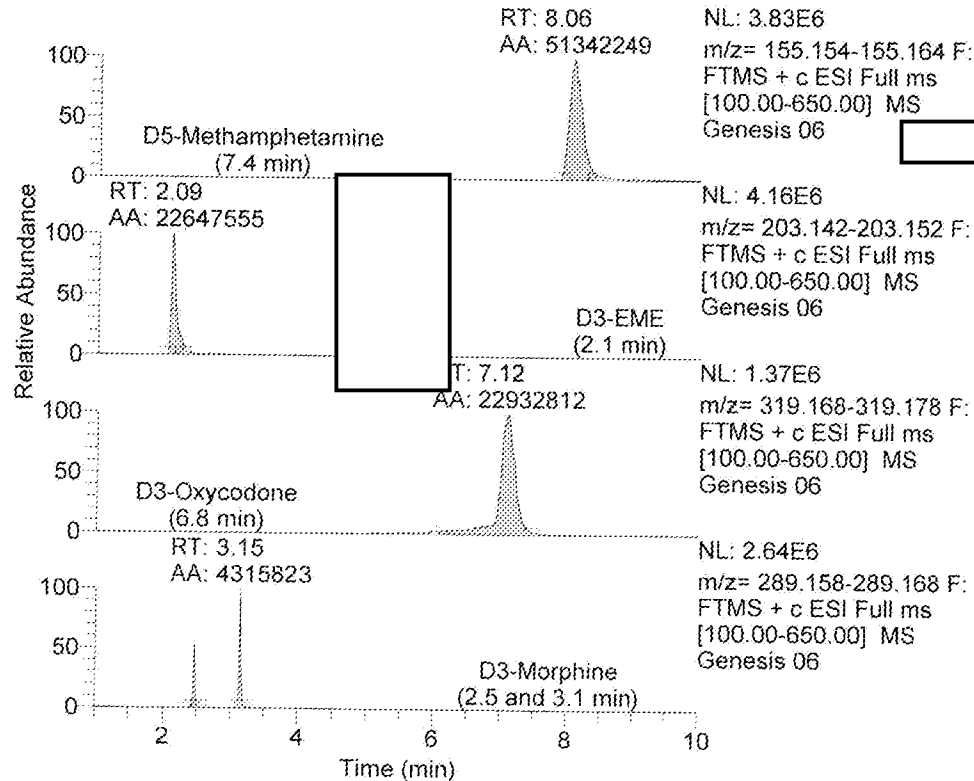
b7C -1

b7E -2

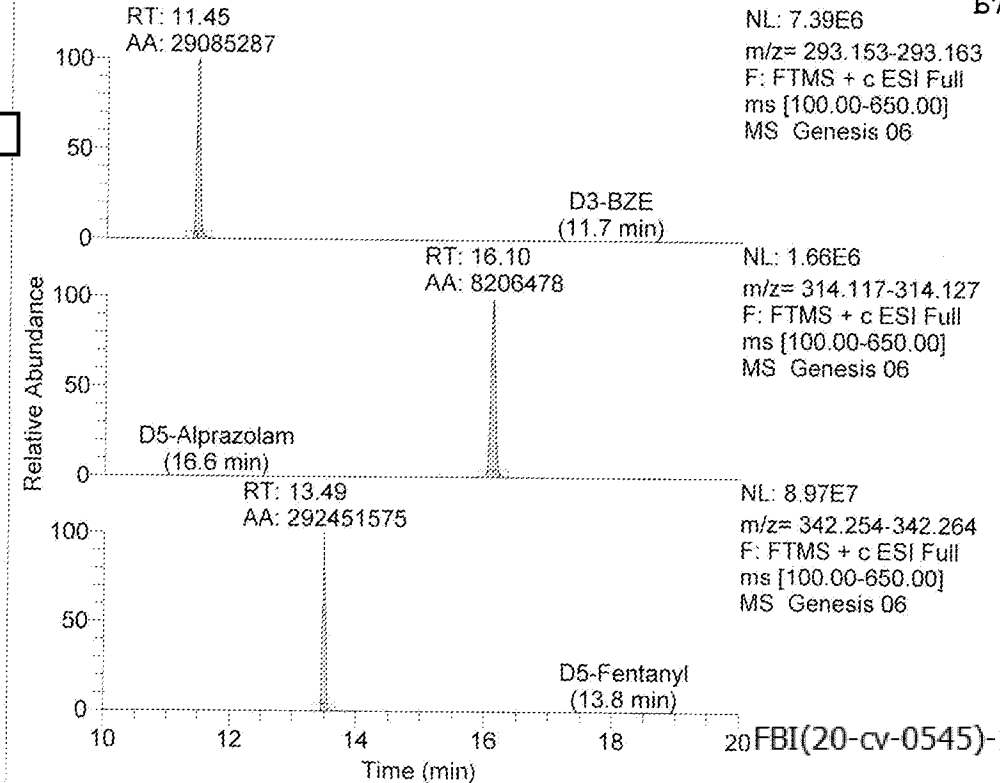
RT: 0.00 - 37.01



RT: 1.00 - 10.00



RT: 10.00 - 20.00



b6 -1

b7C -1

FBI(20-cv-0545)-1418

[Redacted]

10/3/2017 4:08:21 PM

2017-00469, 3, blood

b6 -1

b7C -1

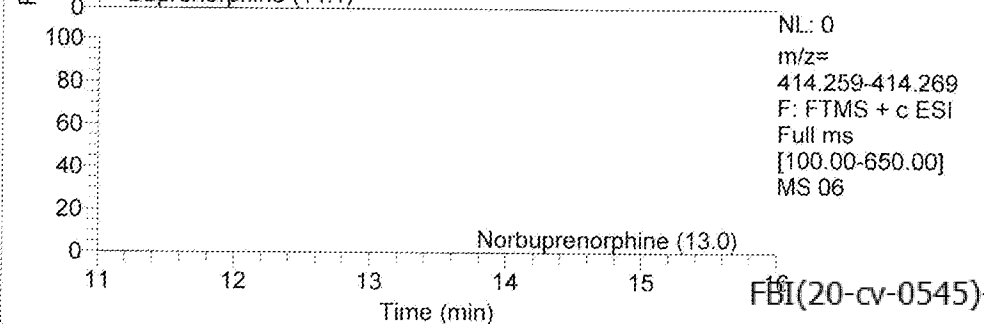
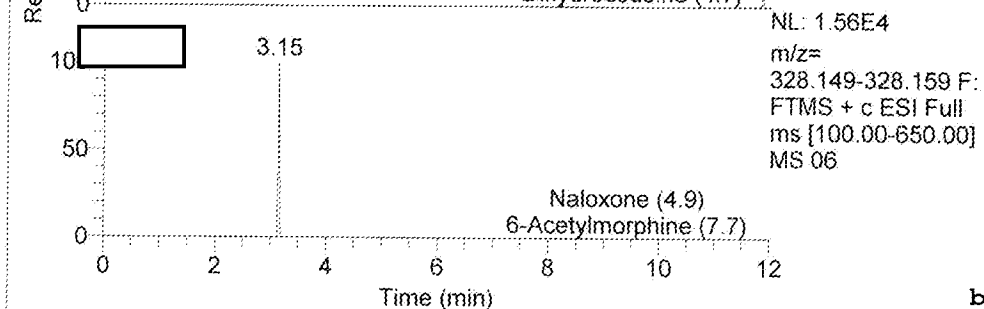
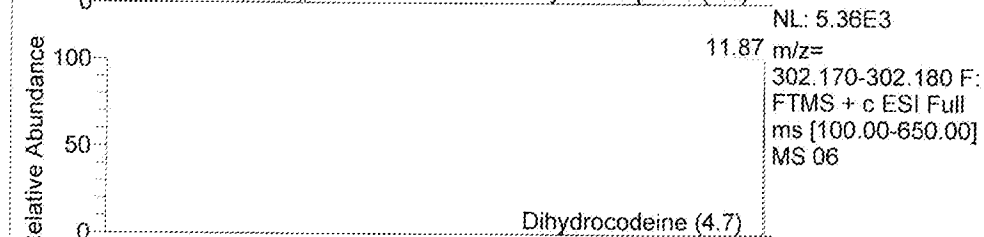
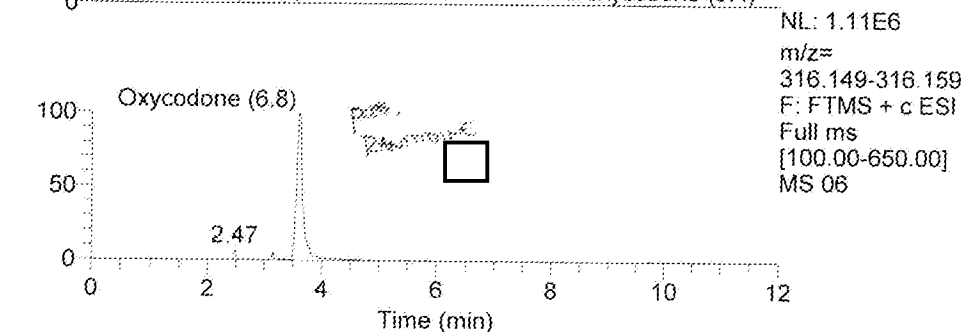
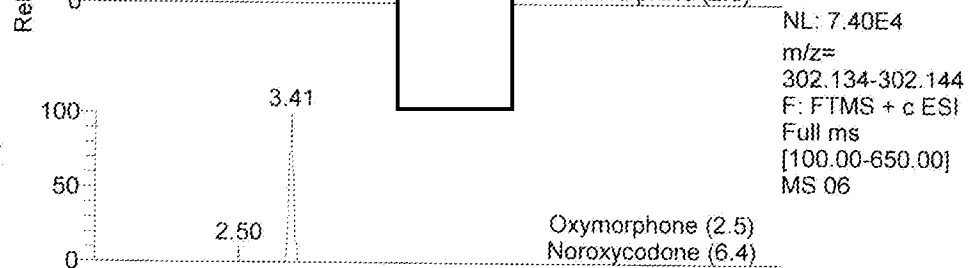
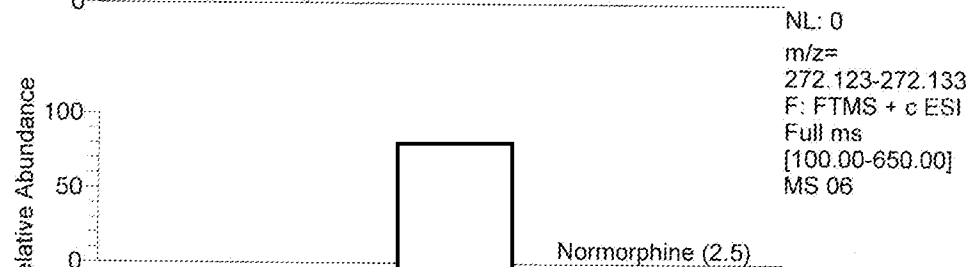
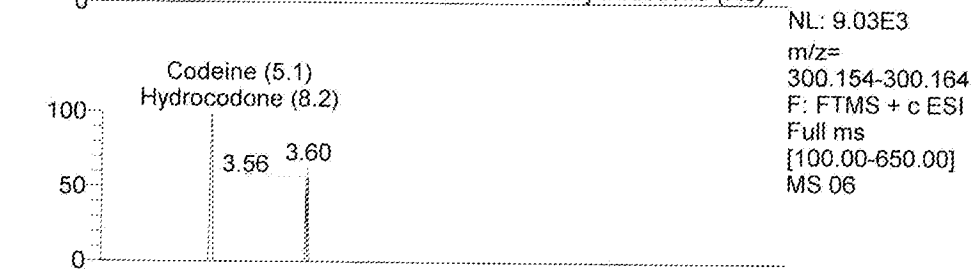
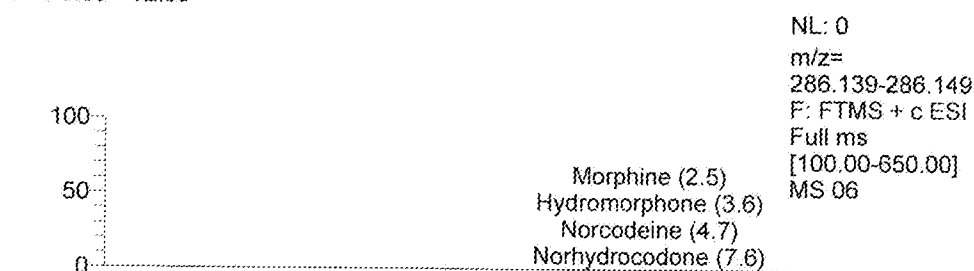
b7E -2

Alkaline Drug Screen

RT: 0.00 - 12.00

LC-ESI-FTMS Data

ANALGESICS - PART 1



b6 -1

b7C -1

FBI(20-cv-0545)-1419

10/3/2017 4:08:21 PM

2017-00469, 3, blood

b6 -1

b7C -1

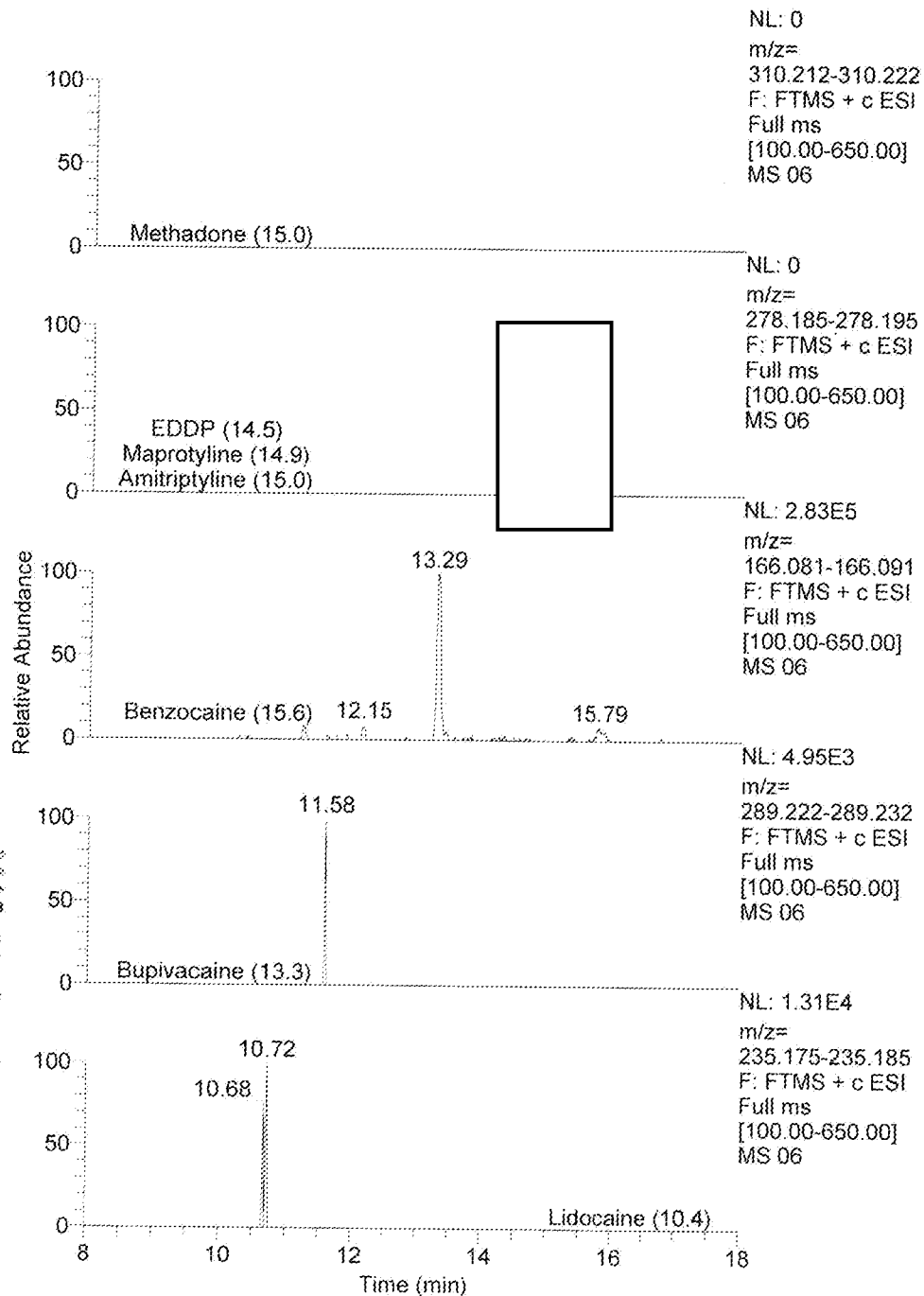
b7E -2

## Alkaline Drug Screen

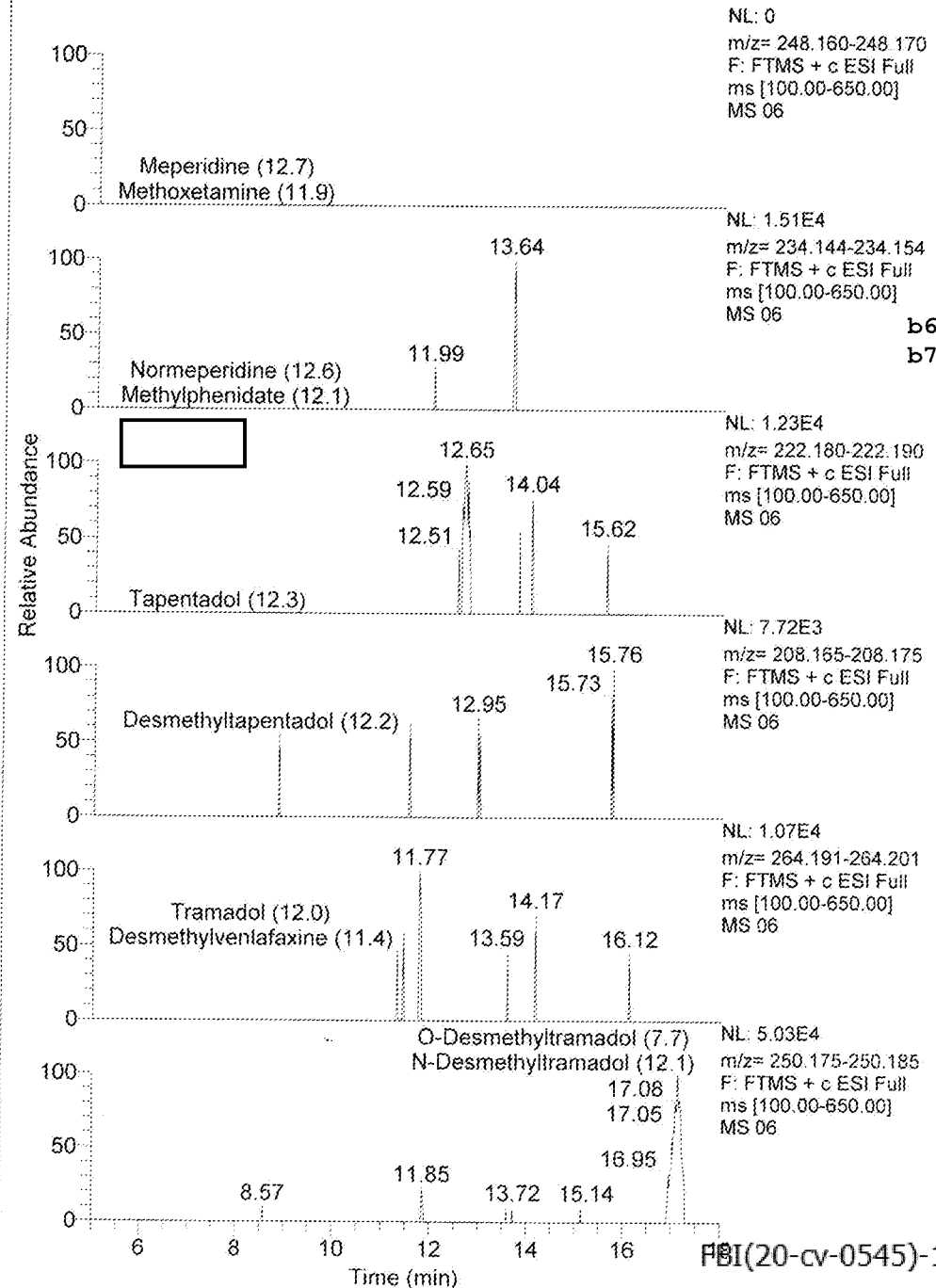
RT: 8.00 - 18.00

## LC-ESI-FTMS Data

## ANALGESICS-PART 2



RT: 5.00 - 18.00



b6 -1

b7C -1

FBI(20-cv-0545)-1420

10/3/2017 4:08:21 PM

2017-00469, 3, blood

b6 -1

b7C -1

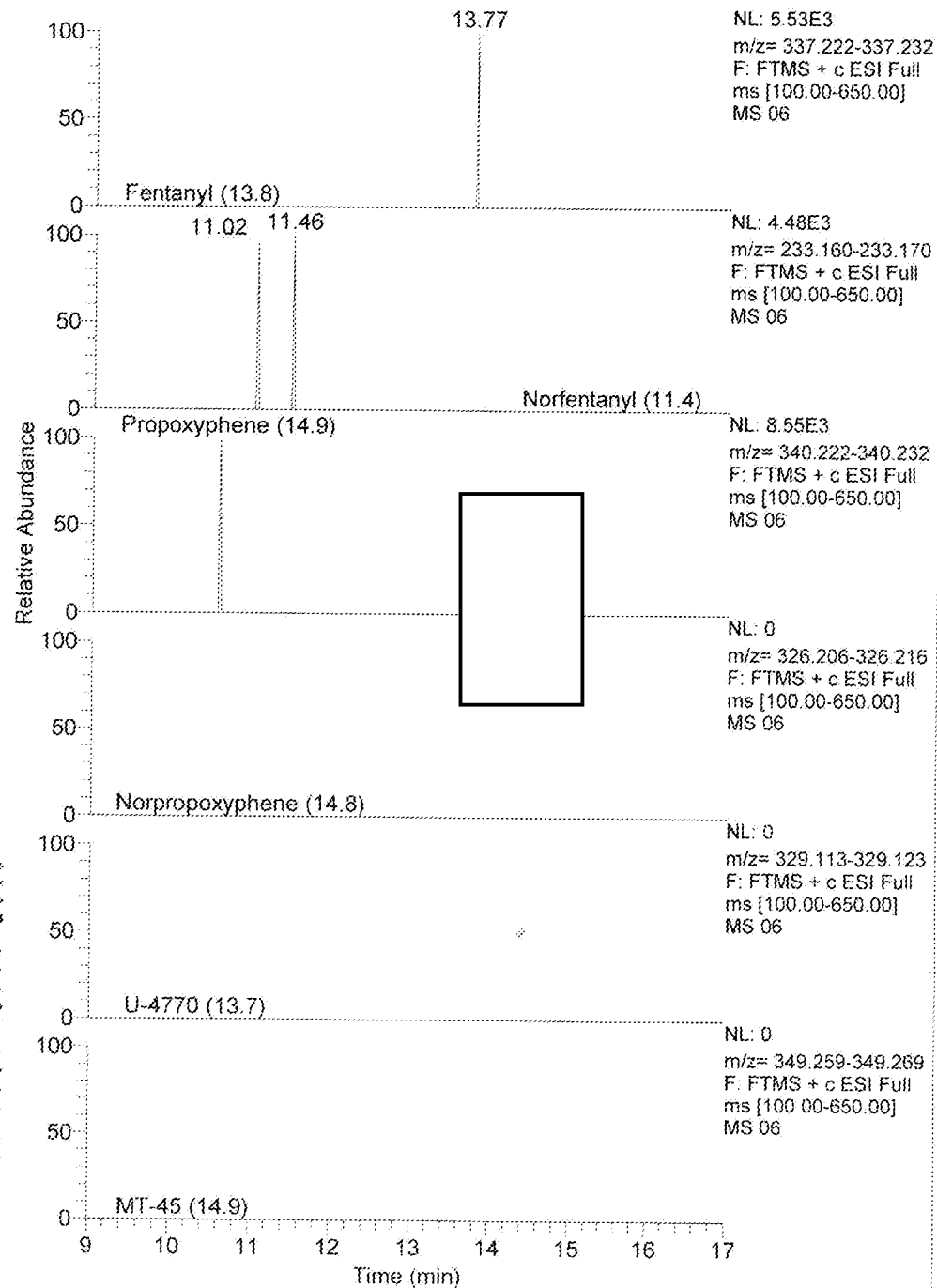
b7E -2

## Alkaline Drug Screen

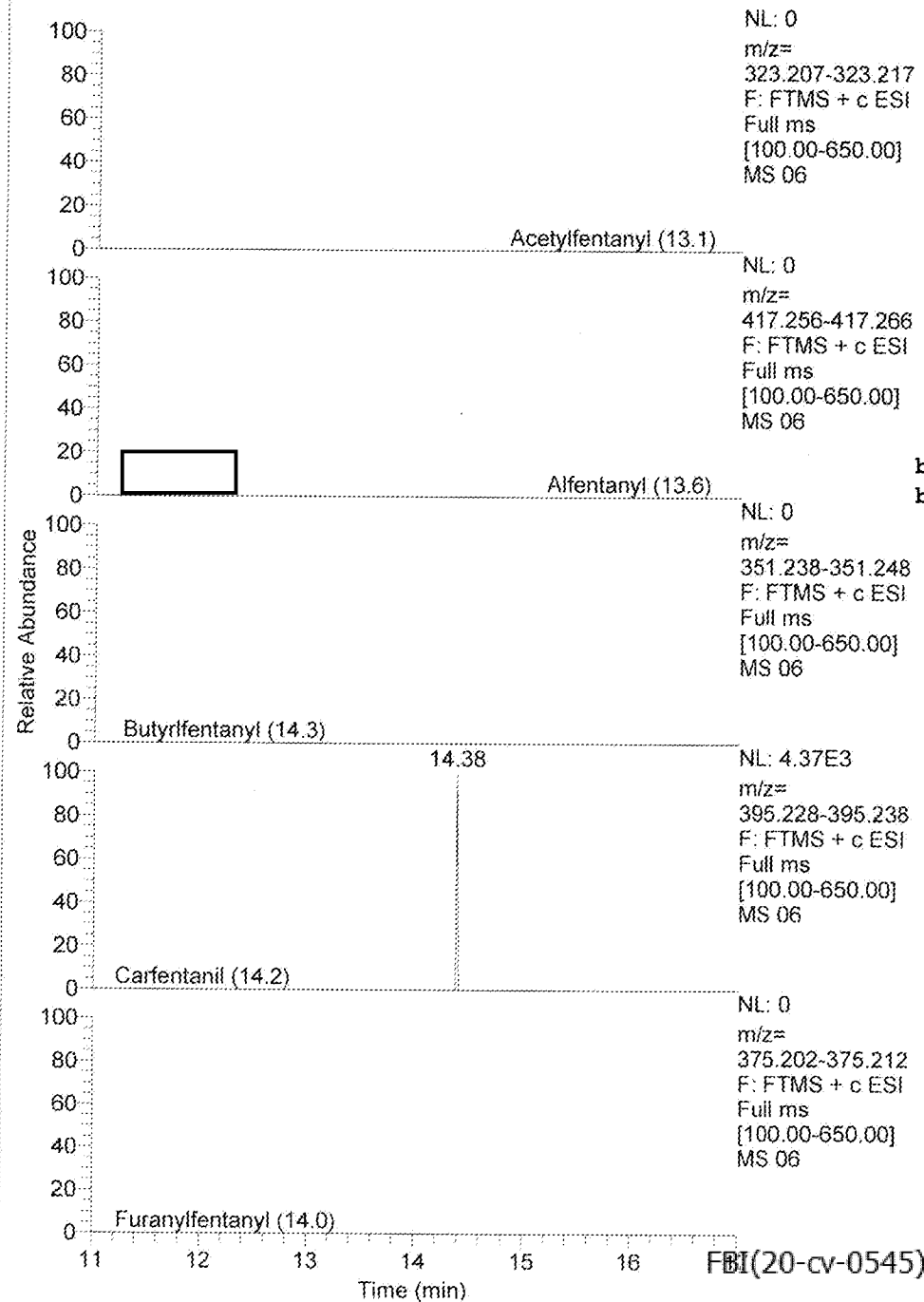
RT: 9.00 - 17.00

## LC-ESI-FTMS Data

## ANALGESICS-PART 3



RT: 11.00 - 17.00



b6 -1

b7C -1

FBI(20-cv-0545)-1421

[Redacted]

10/3/2017 4:08:21 PM

2017-00469, 3, blood

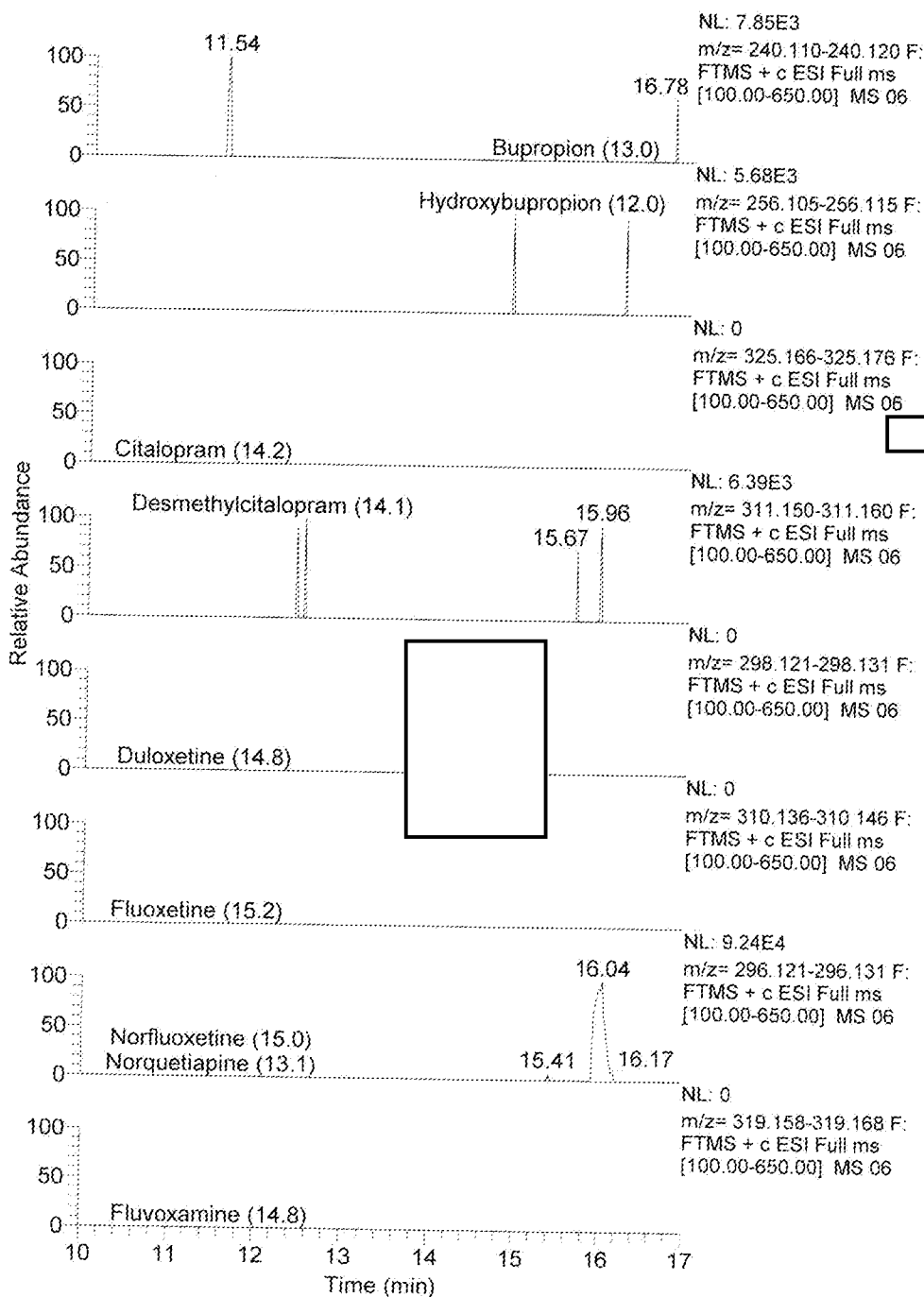
b6 -1  
b7C -1  
b7E -2

Alkaline Drug Screen

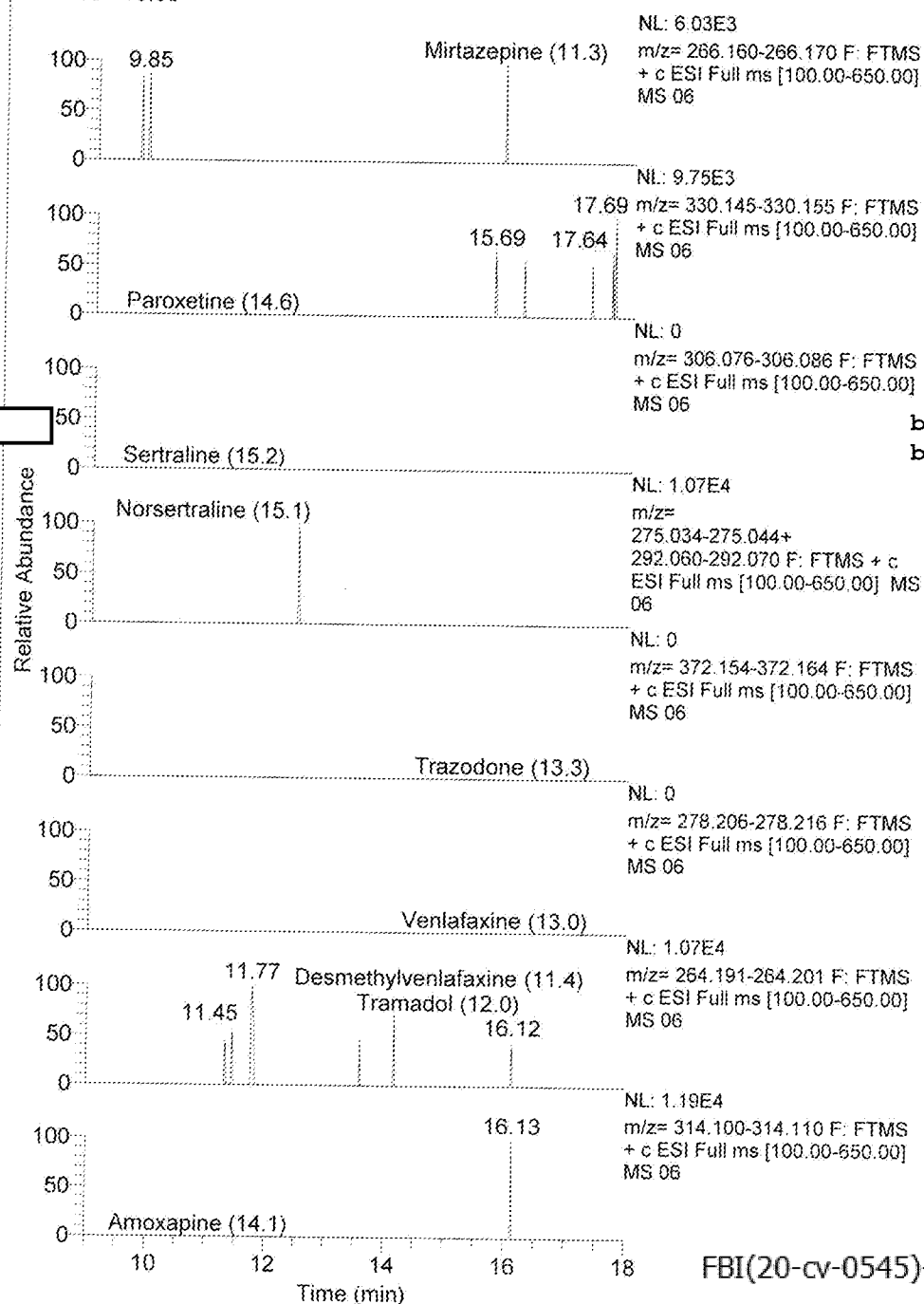
RT: 10.00 - 17.00

LC-ESI-FTMS Data

ANTIDEPRESSANTS



RT: 9.00 - 18.00



b6 -1  
b7C -1

FBI(20-cv-0545)-1422

[Redacted]

10/3/2017 4:08:21 PM

2017-00469, 3, blood

b6 -1  
b7C -1  
b7E -2

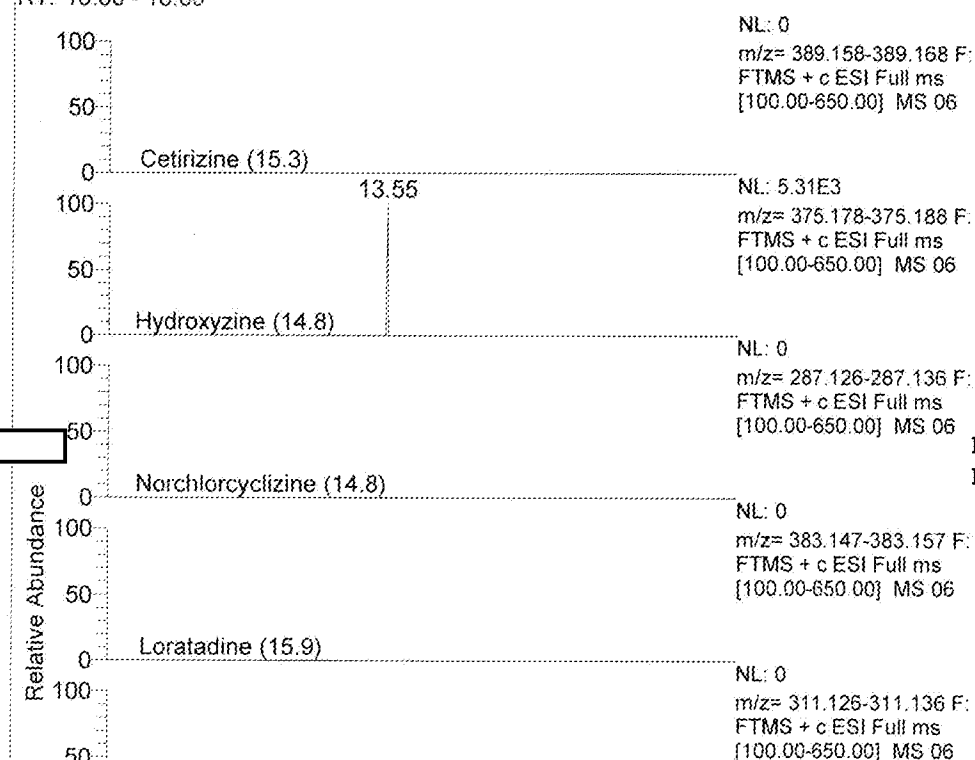
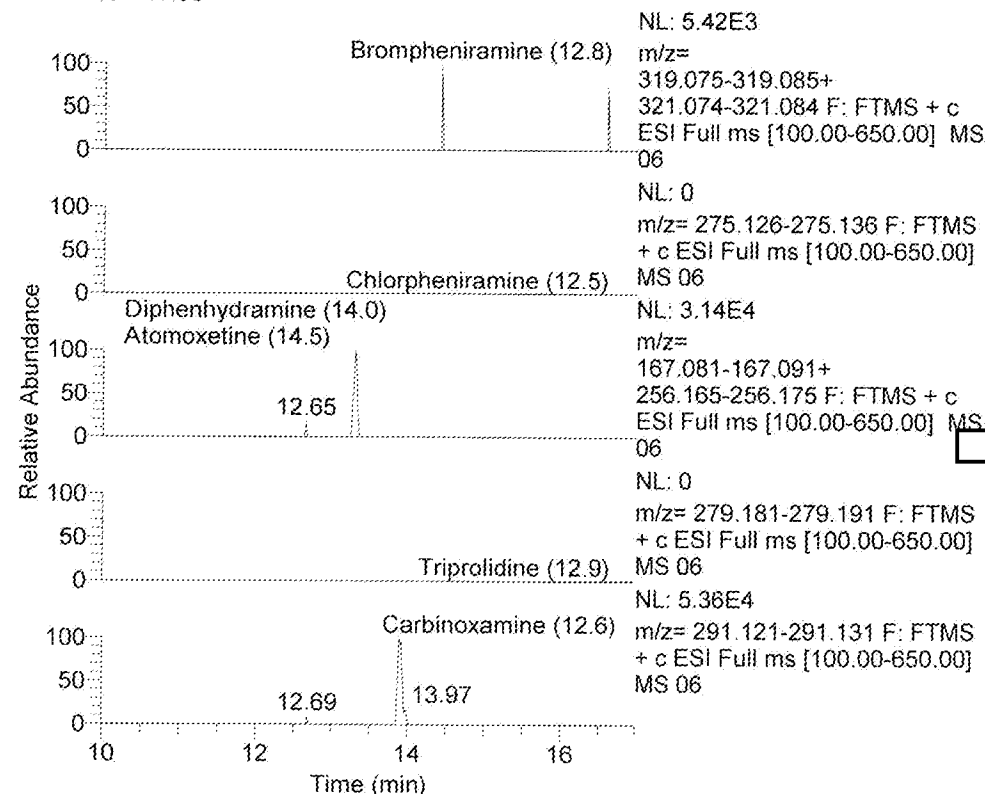
Alkaline Drug Screen

LC-ESI-FTMS Data

ANTI-HISTAMINES

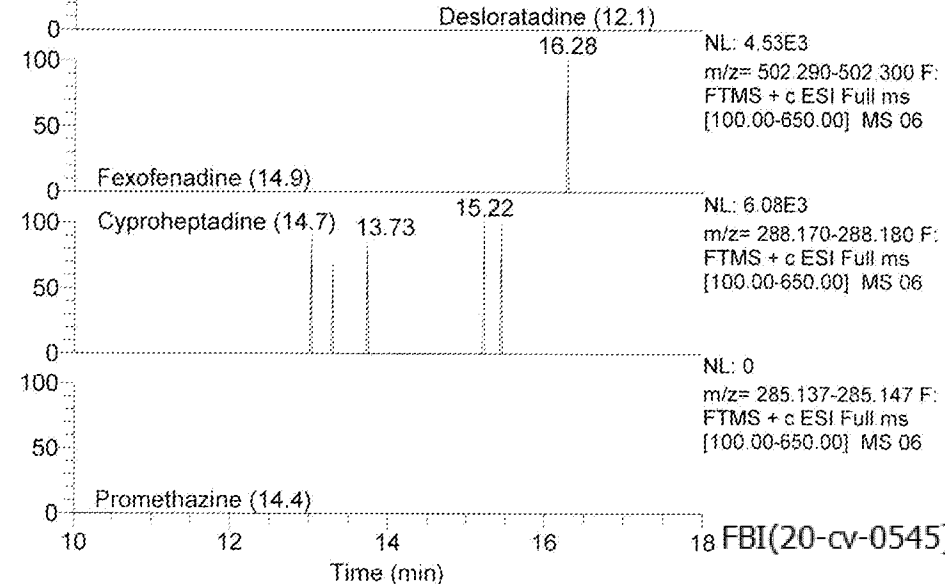
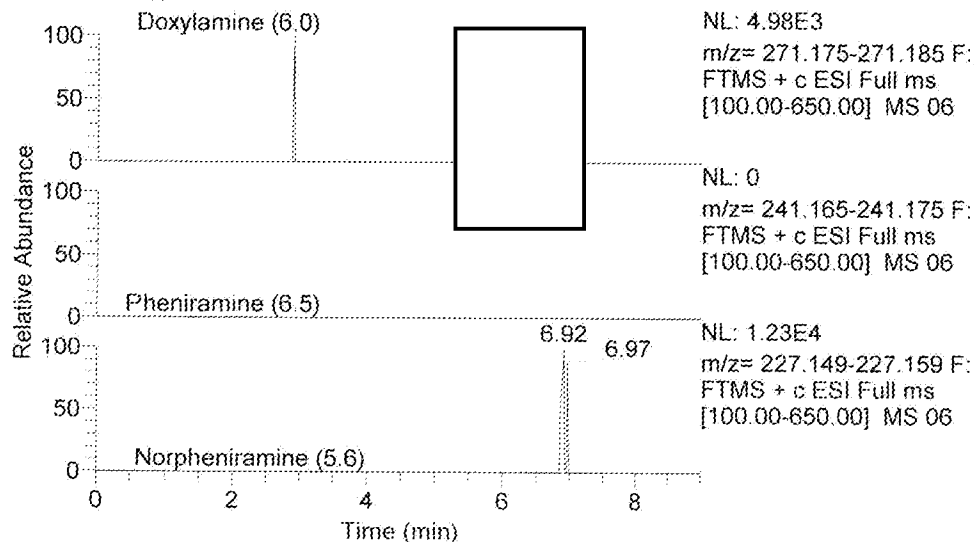
RT: 10.00 - 17.00

RT: 10.00 - 18.00



b6 -1  
b7C -1

RT: 0.00 - 9.00



FBI(20-cv-0545)-1423

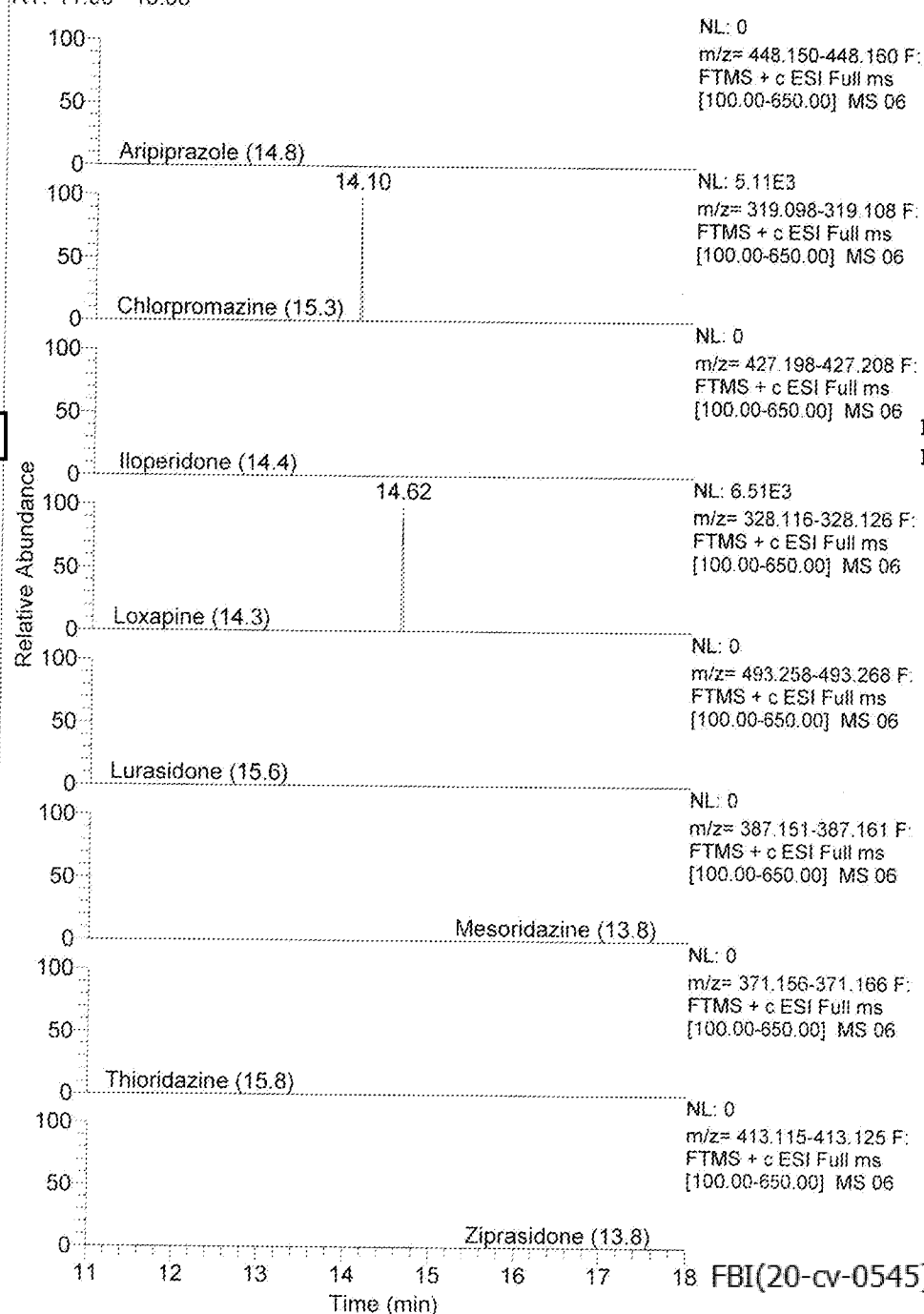
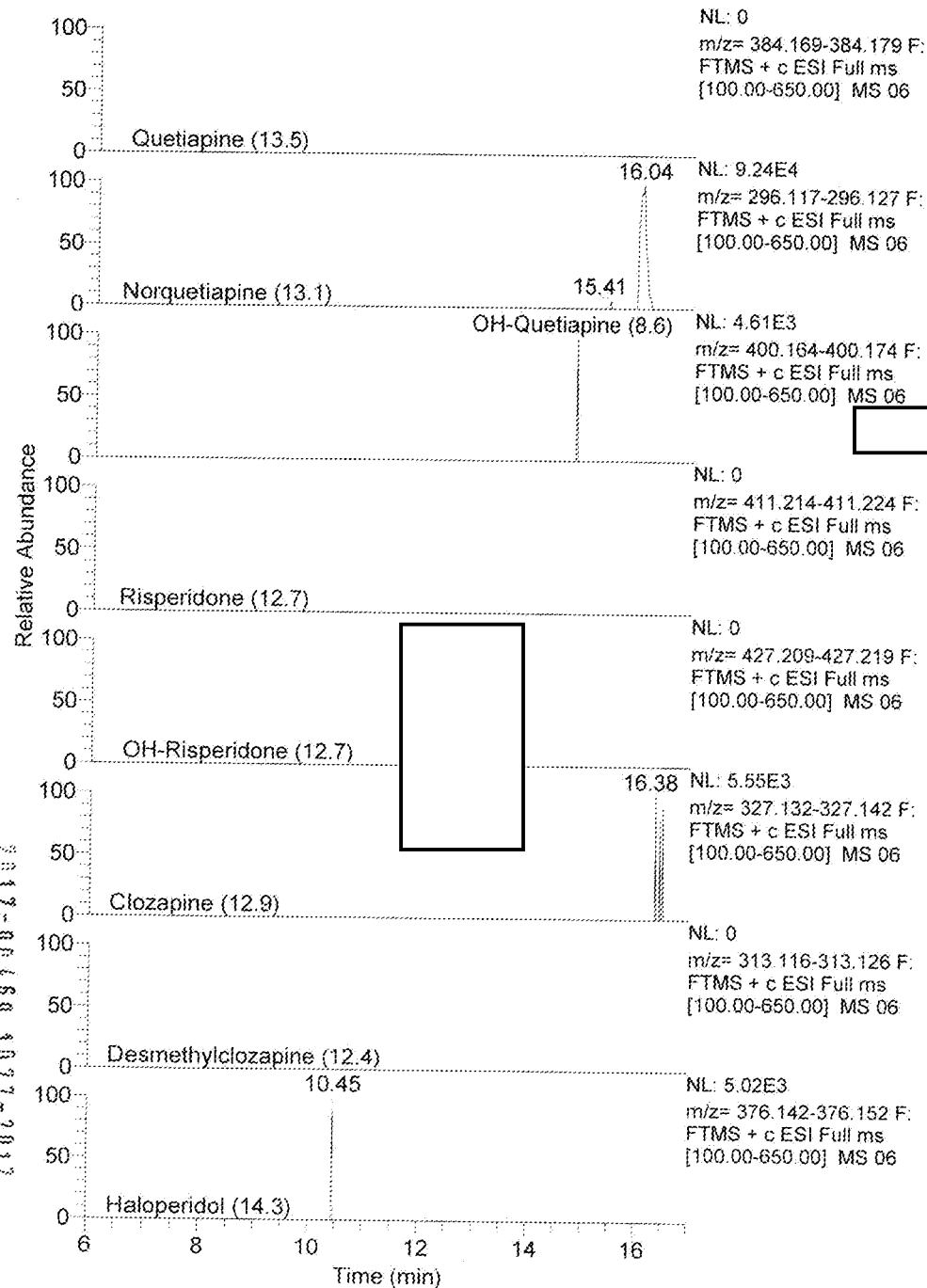
RT: 6.00 - 17.00

2017-00469, 3, blood

b6 -1  
b7C -1  
b7E -2

## ANTIPSYCHOTICS

RT: 11.00 - 18.00



b6 -1  
b7C -1

FBI(20-cv-0545)-1424



Alkaline Drug Screen

RT: 9.00 - 16.00

10/3/2017 4:08:21 PM

2017-00469, 3, blood

b6 -1

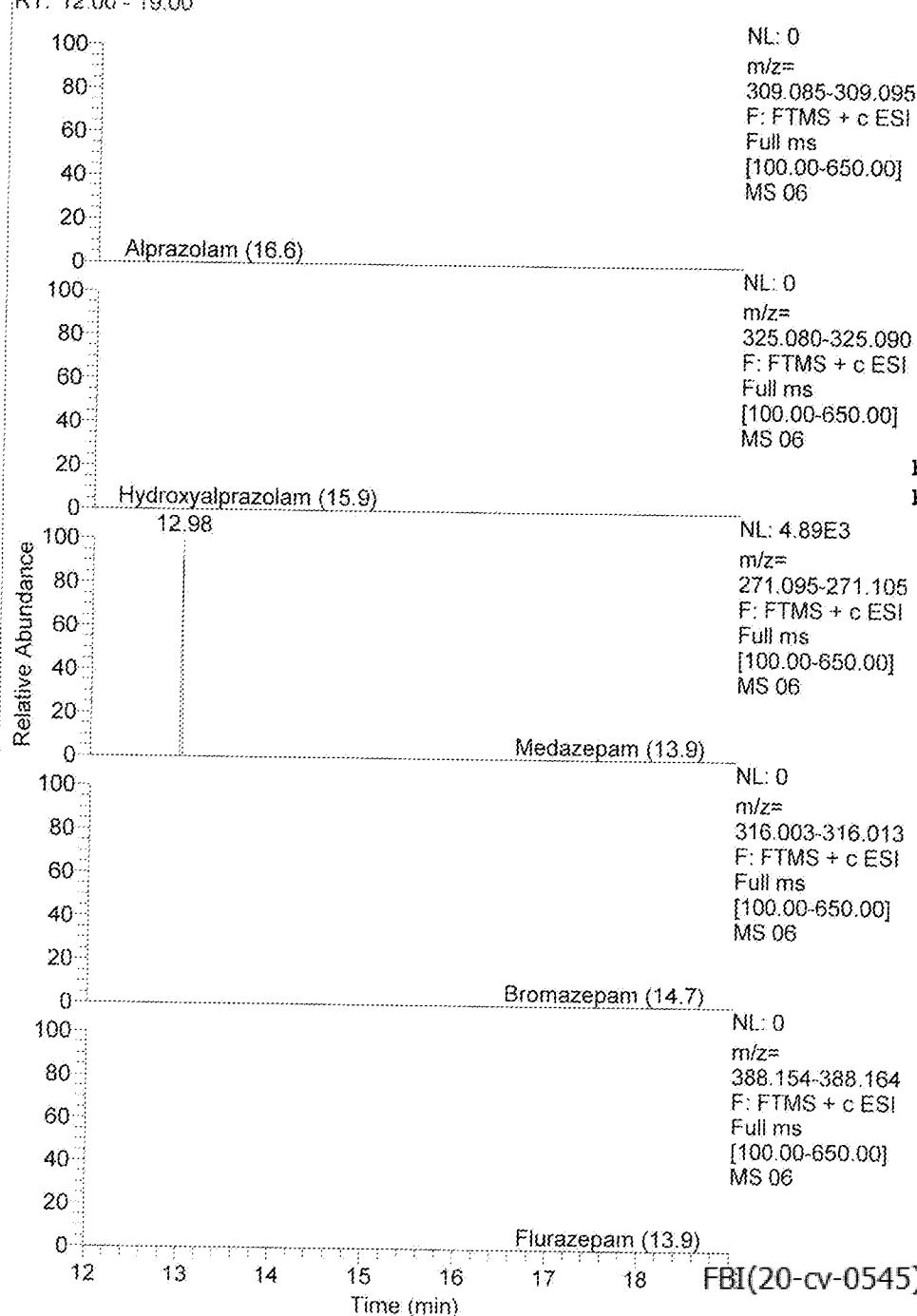
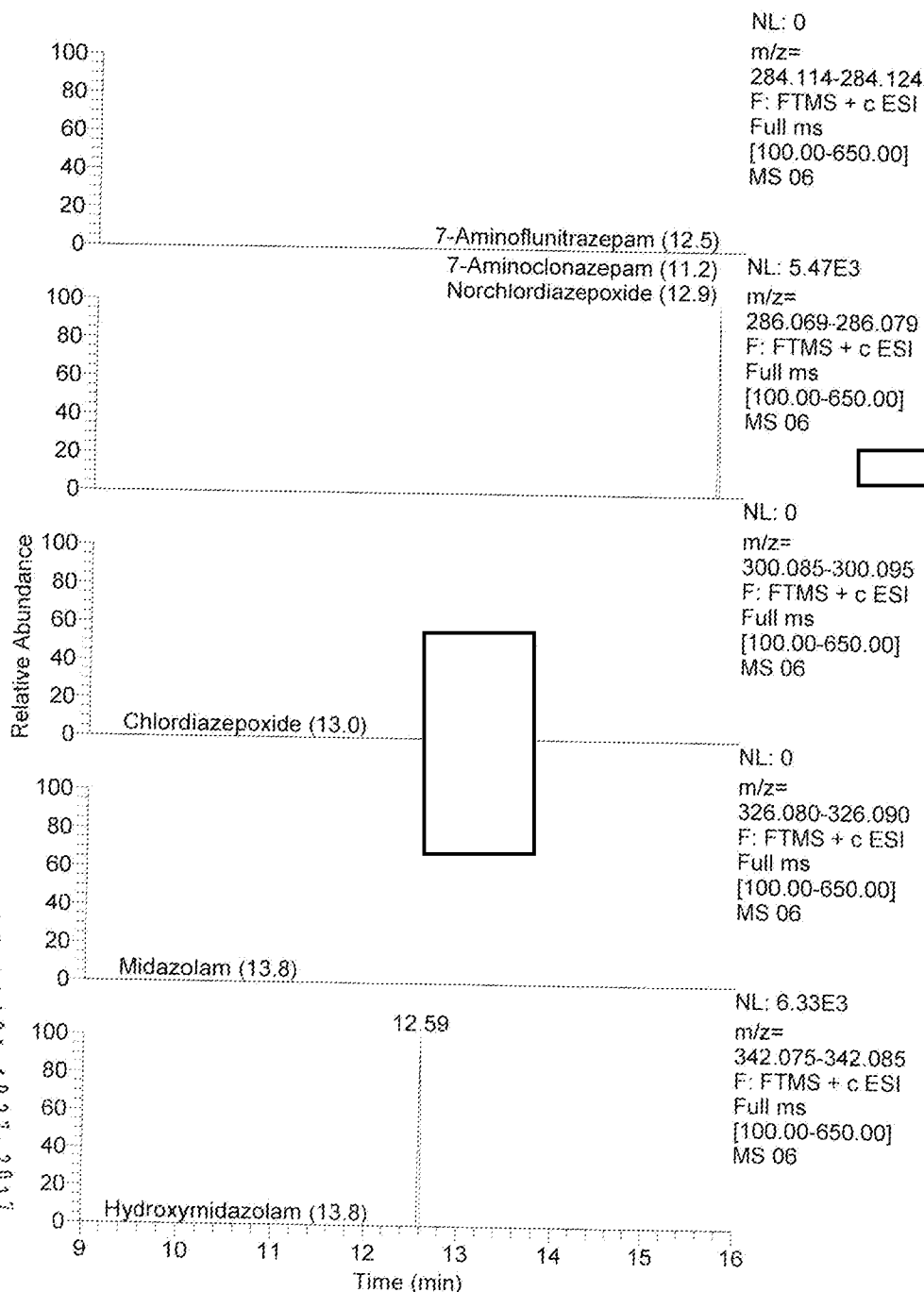
b7C -1

b7E -2

LC-ESI-FTMS Data

BENZODIAZEPINES 1

RT: 12.00 - 19.00



b6 -1

b7C -1

FBI(20-cv-0545)-1425

[Redacted]

10/3/2017 4:08:21 PM

2017-00469, 3, blood

b6 -1

b7C -1

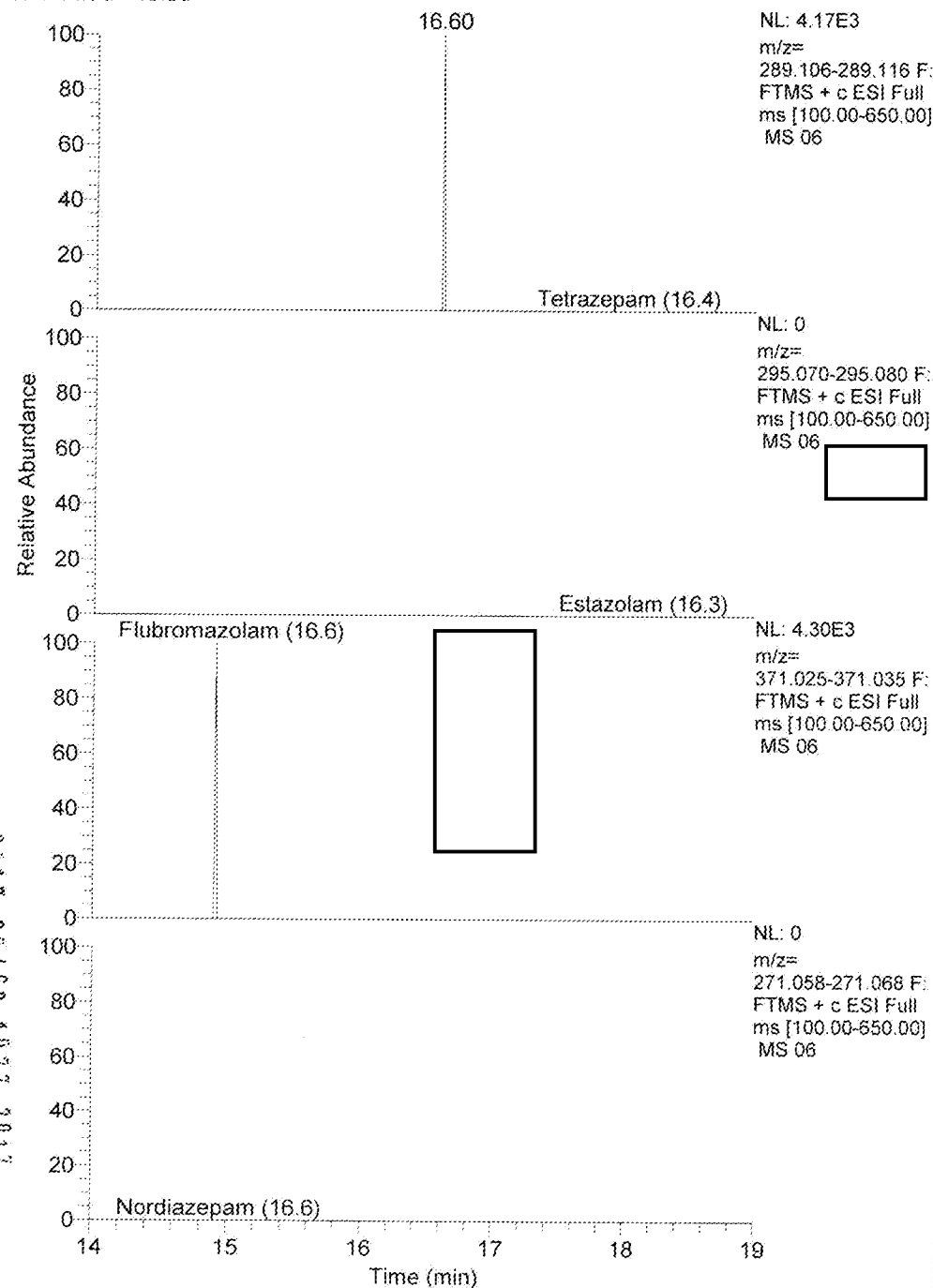
b7E -2

Alkaline Drug Screen

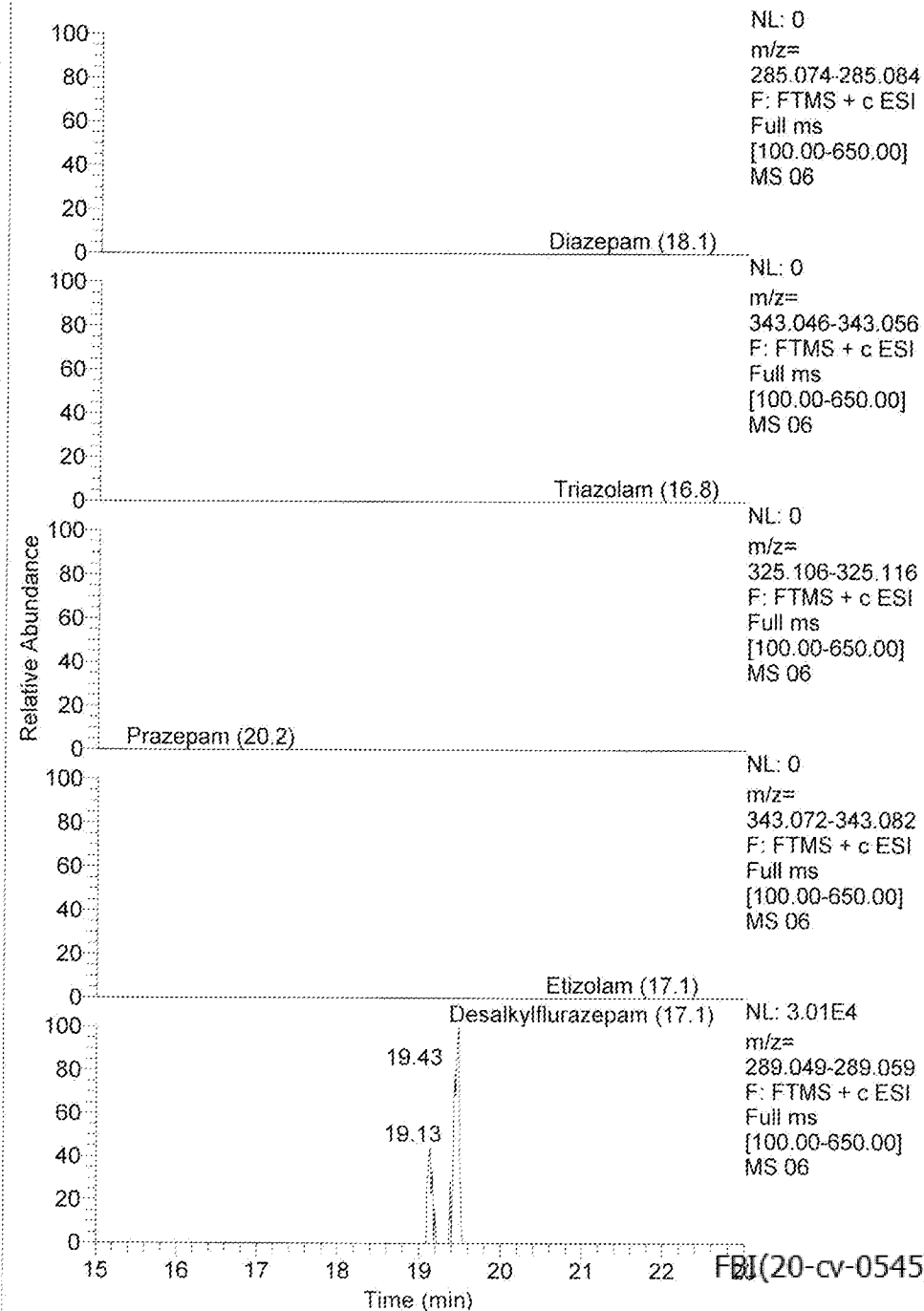
RT: 14.00 - 19.00

LC-ESI-FTMS Data

BENZODIAZEPINES 2



RT: 15.00 - 23.00



b6 -1

b7C -1

FBI(20-cv-0545)-1426

10/3/2017 4:08:21 PM

2017-00469, 3, blood

b6 -1

b7C -1

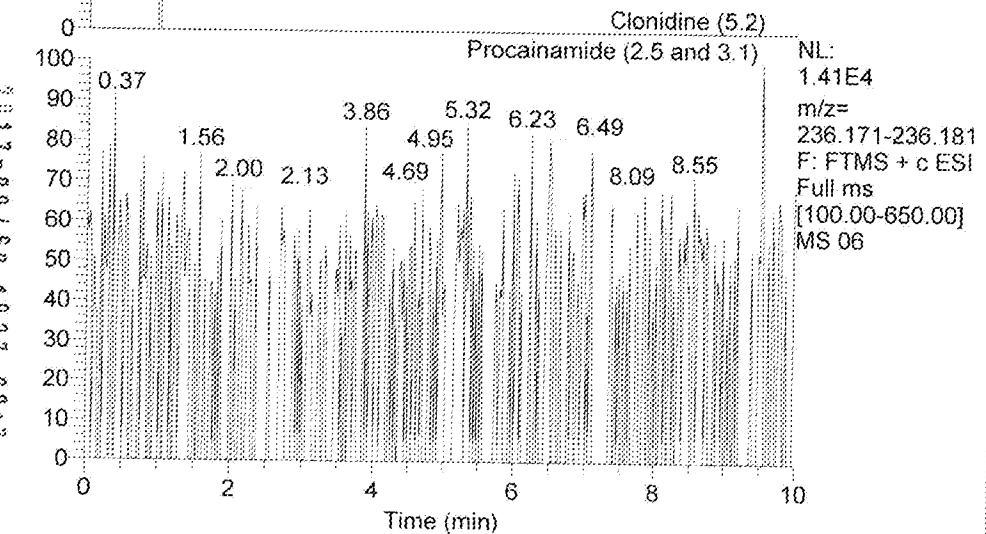
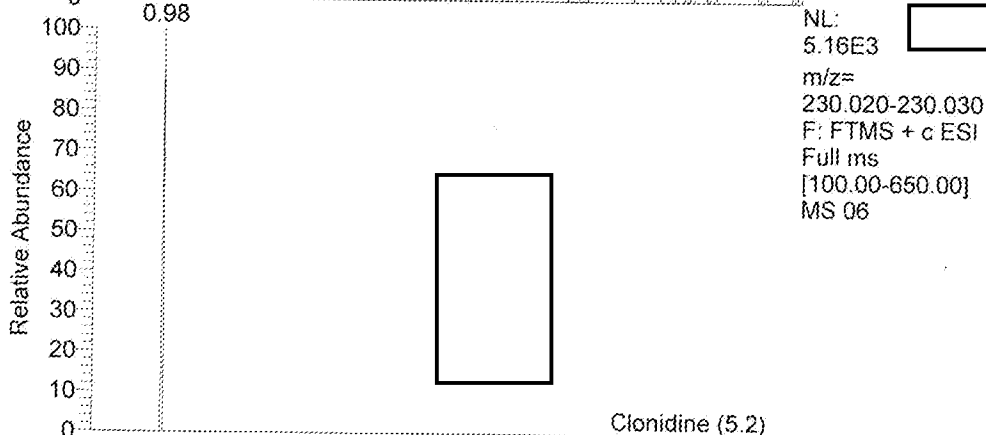
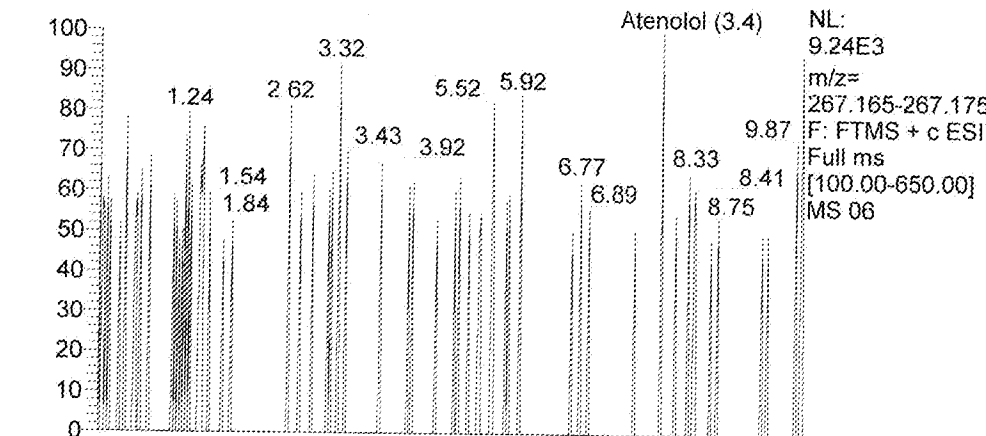
b7E -2

## Alkaline Drug Screen

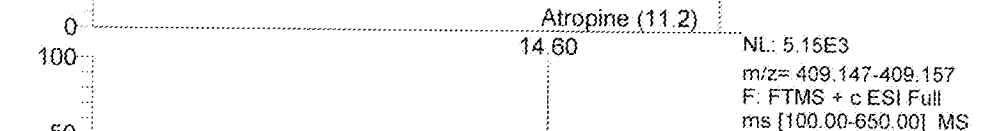
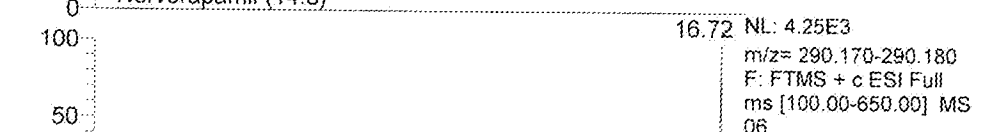
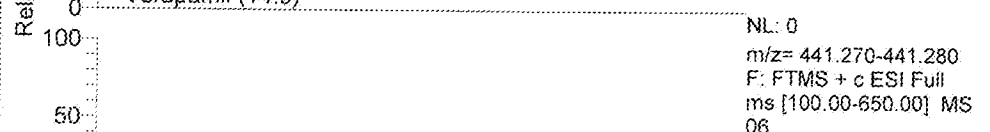
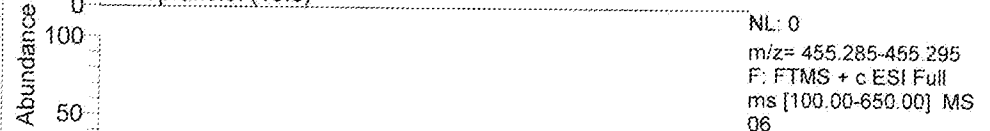
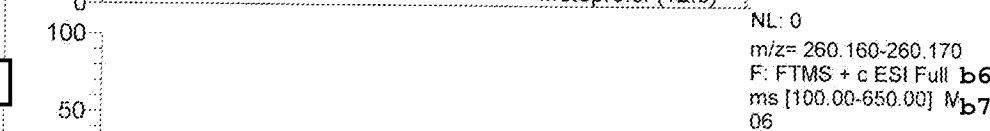
RT: 0.00 - 10.00

## LC-ESI-FTMS Data

## CARDIAC DRUGS



RT: 9.00 - 17.00



FBI(20-cv-0545)-1427

[Redacted]

10/3/2017 4:08:21 PM

2017-00469, 3, blood

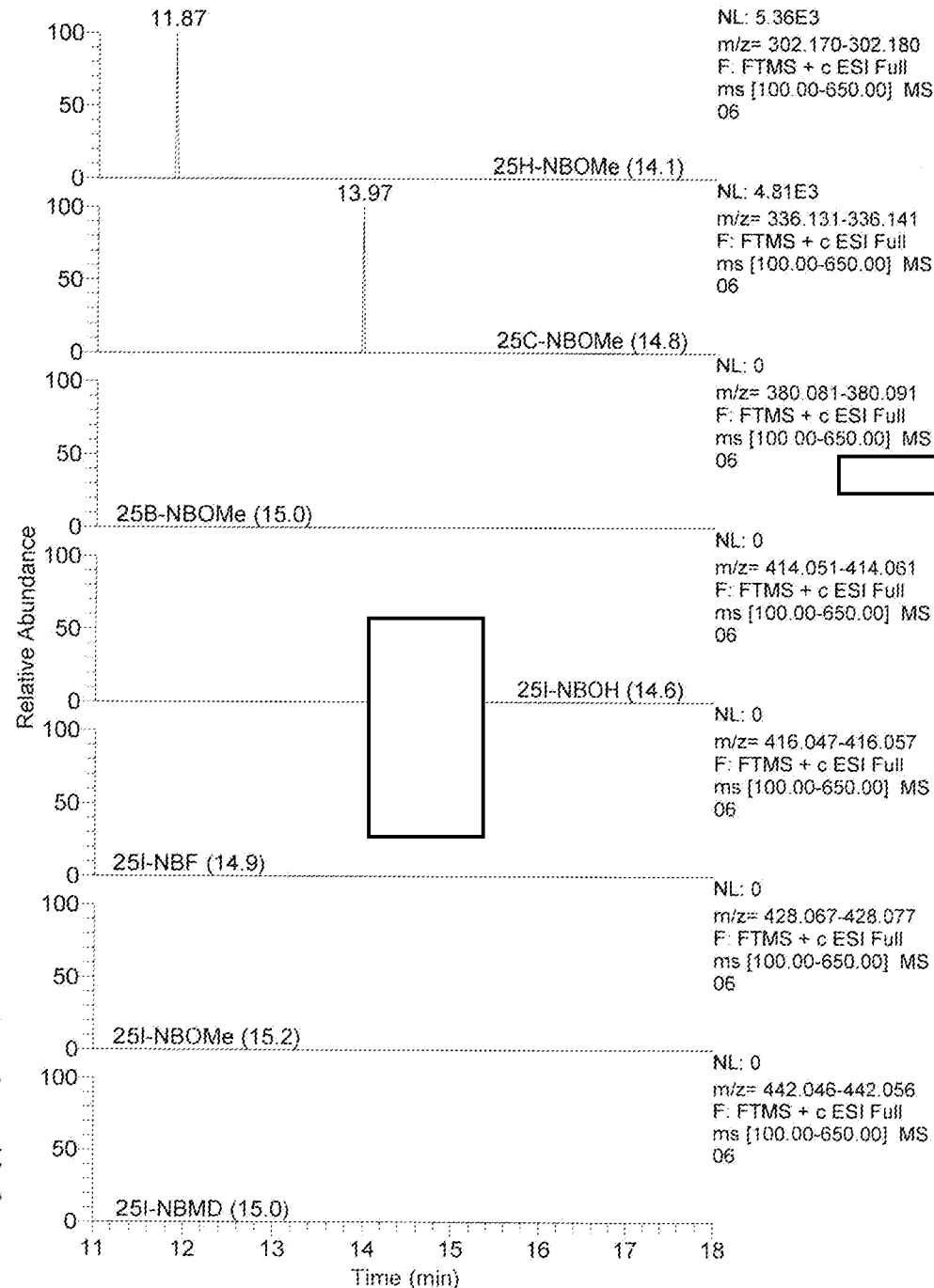
b6 -1

b7C -1

b7E -2

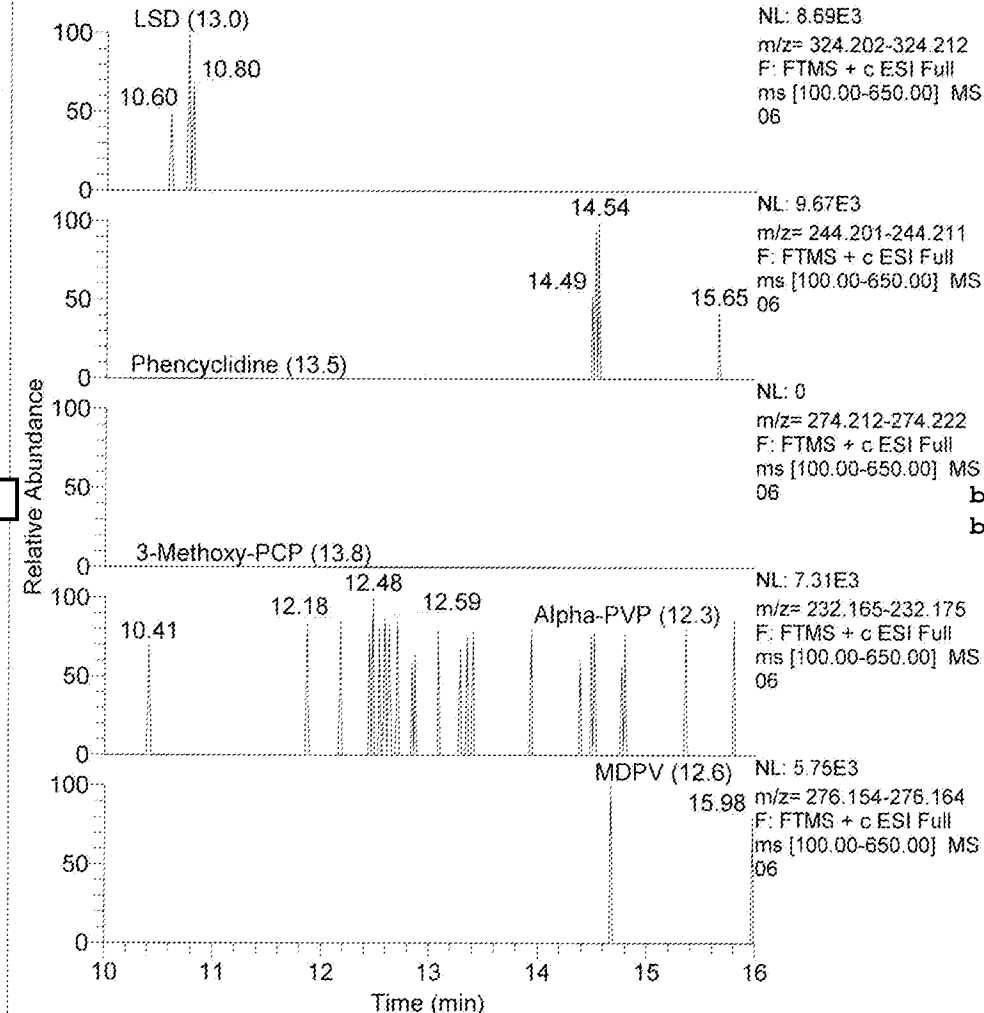
# Alkaline Drug Screen

RT: 11.00 - 18.00

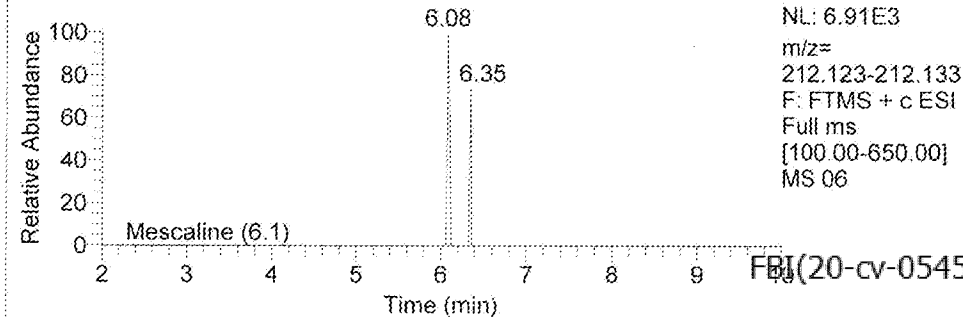


# LC-ESI-FTMS Data

RT: 10.00 - 16.00



RT: 2.00 - 10.00



FBI(20-cv-0545)-1428

b6 -1

b7C -1

[Redacted]

10/3/2017 4:08:21 PM

2017-00469, 3, blood

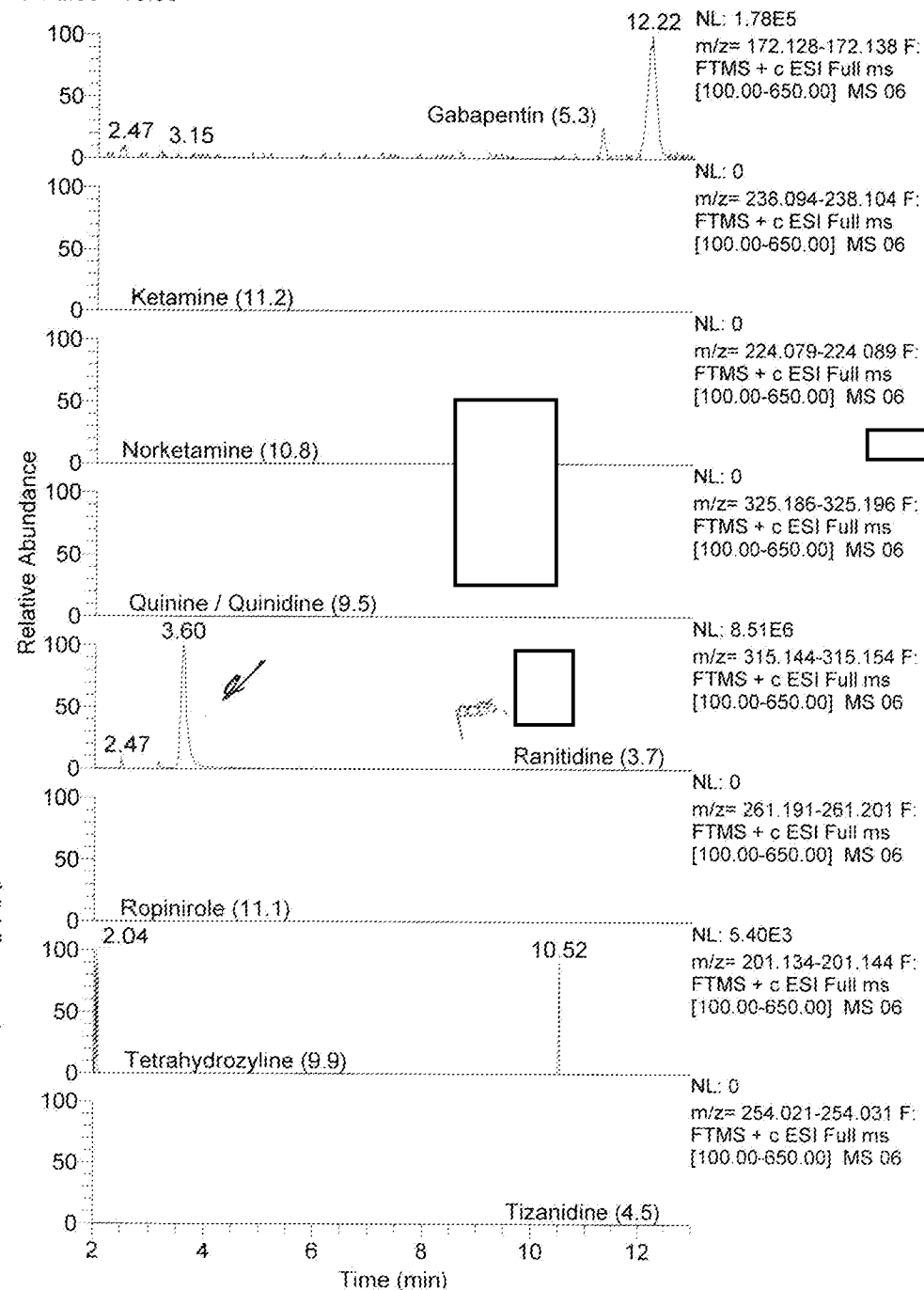
b6 -1

b7C -1

b7E -2

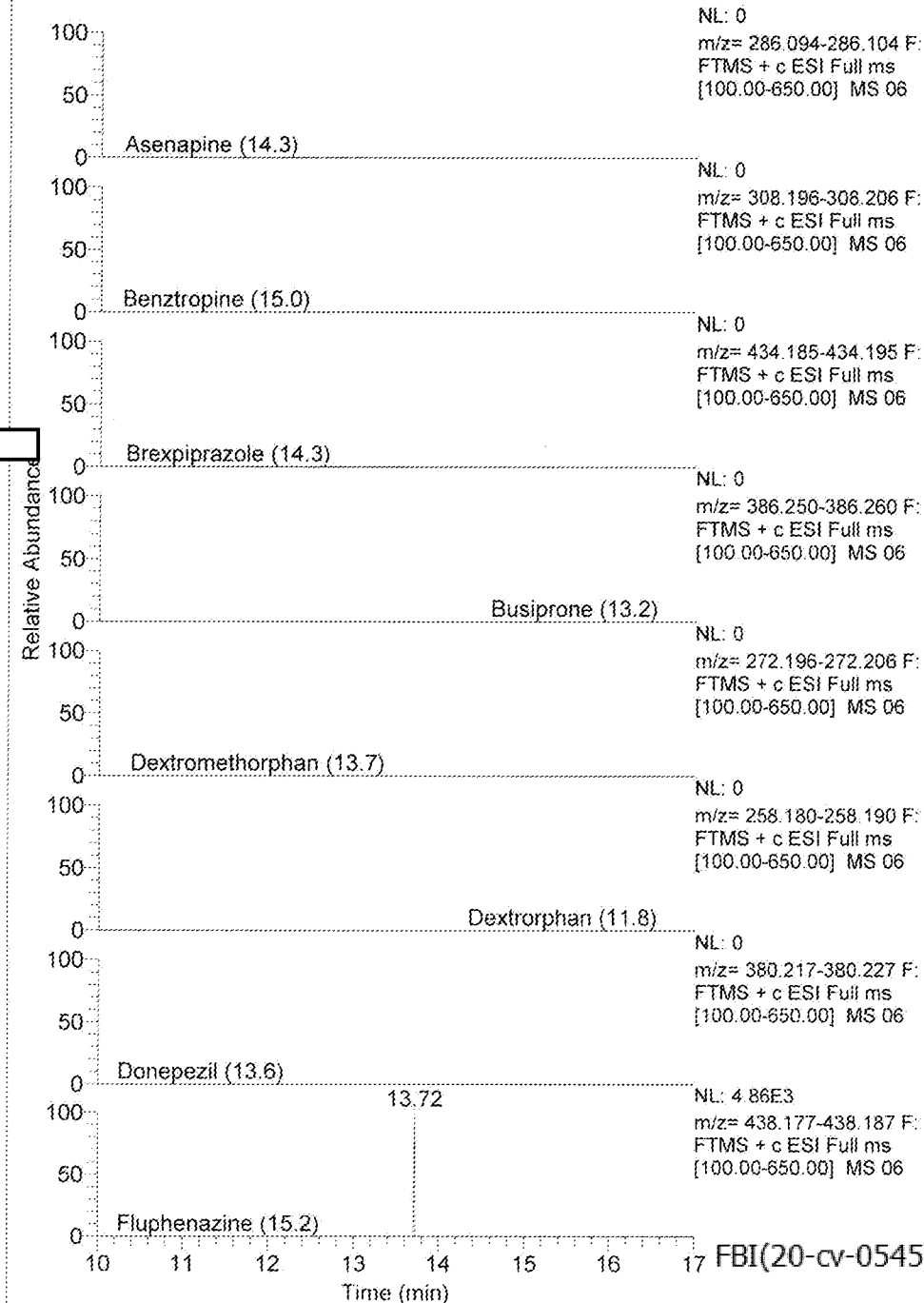
# Alkaline Drug Screen

RT: 2.00 - 13.00



# LC-ESI-FTMS Data

RT: 10.00 - 17.00



b6 -1

b7C -1

FBI(20-cv-0545)-1429



10/3/2017 4:08:21 PM

2017-00469, 3, blood

b6 -1

b7C -1

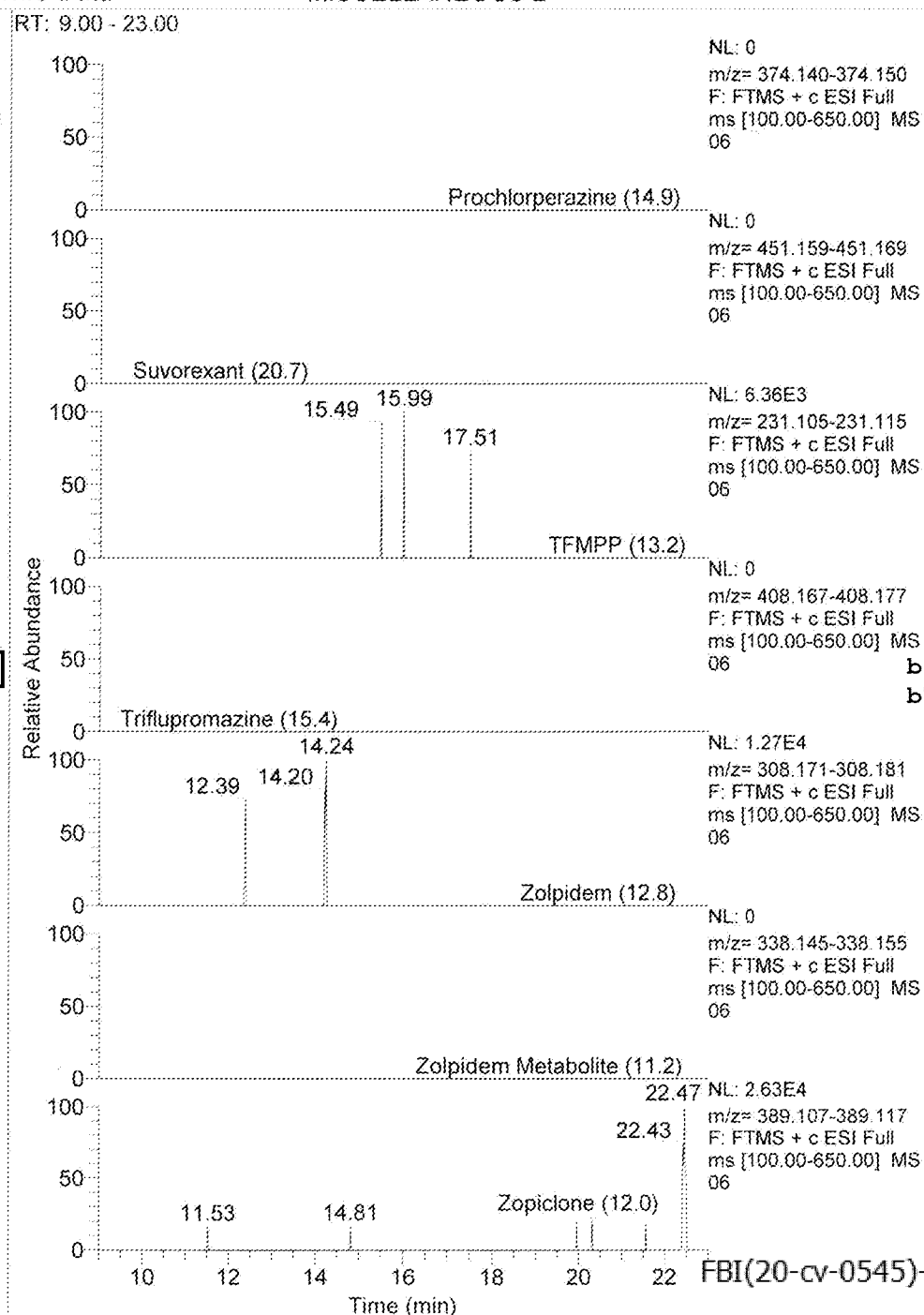
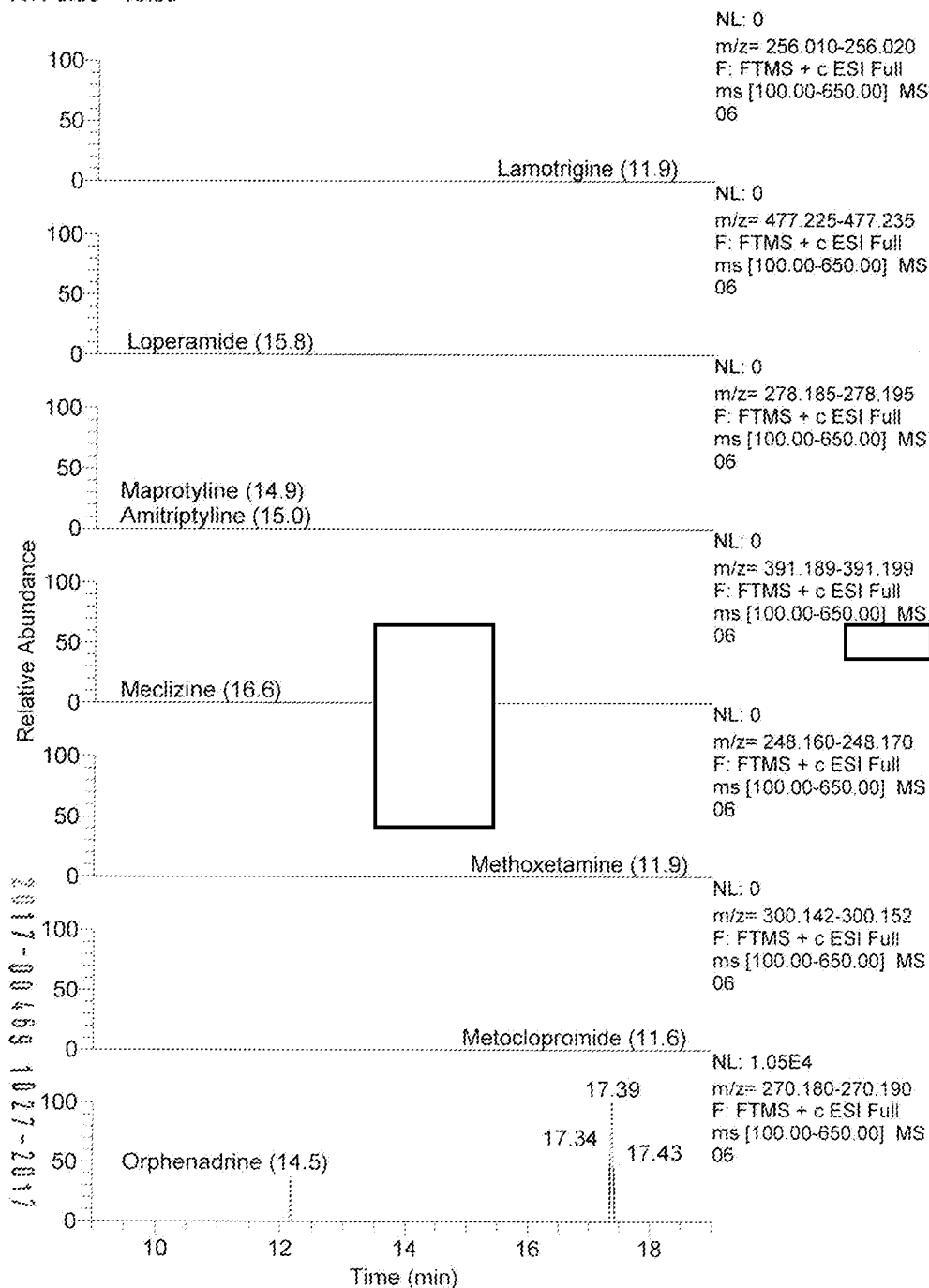
b7E -2

## Alkaline Drug Screen

RT: 9.00 - 19.00

## LC-ESI-FTMS Data

## MISCELLANEOUS 2



b6 -1

b7C -1

FBI(20-cv-0545)-1430

10/3/2017 4:08:21 PM

2017-00469, 3, blood

b6 -1

b7C -1

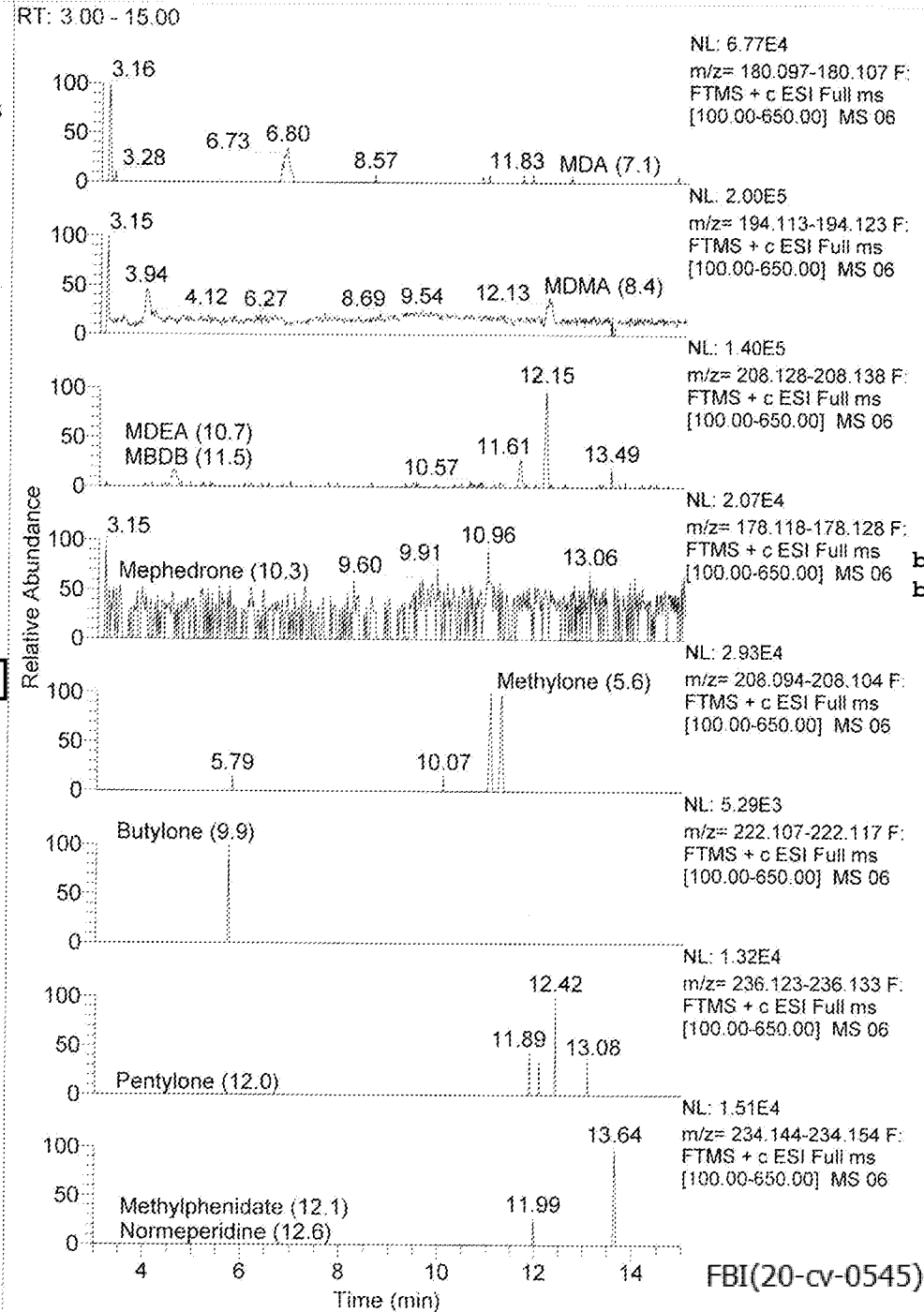
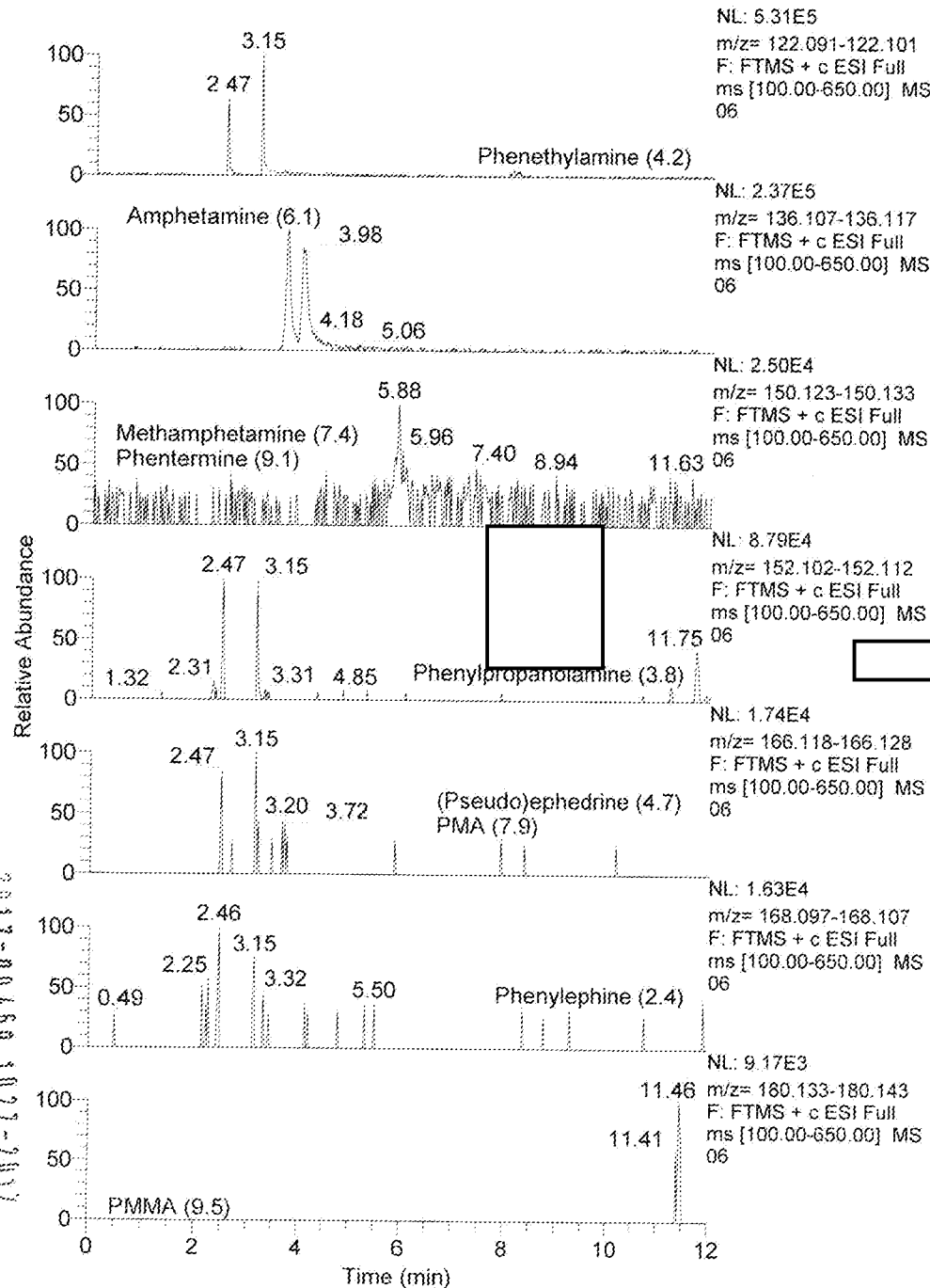
b7E -2

## Alkaline Drug Screen

RT: 0.00 - 12.00

## LC-ESI-FTMS Data

## PHENETHYLAMINES



FBI(20-cv-0545)-1431

10/3/2017 4:08:21 PM

2017-00469, 3, blood

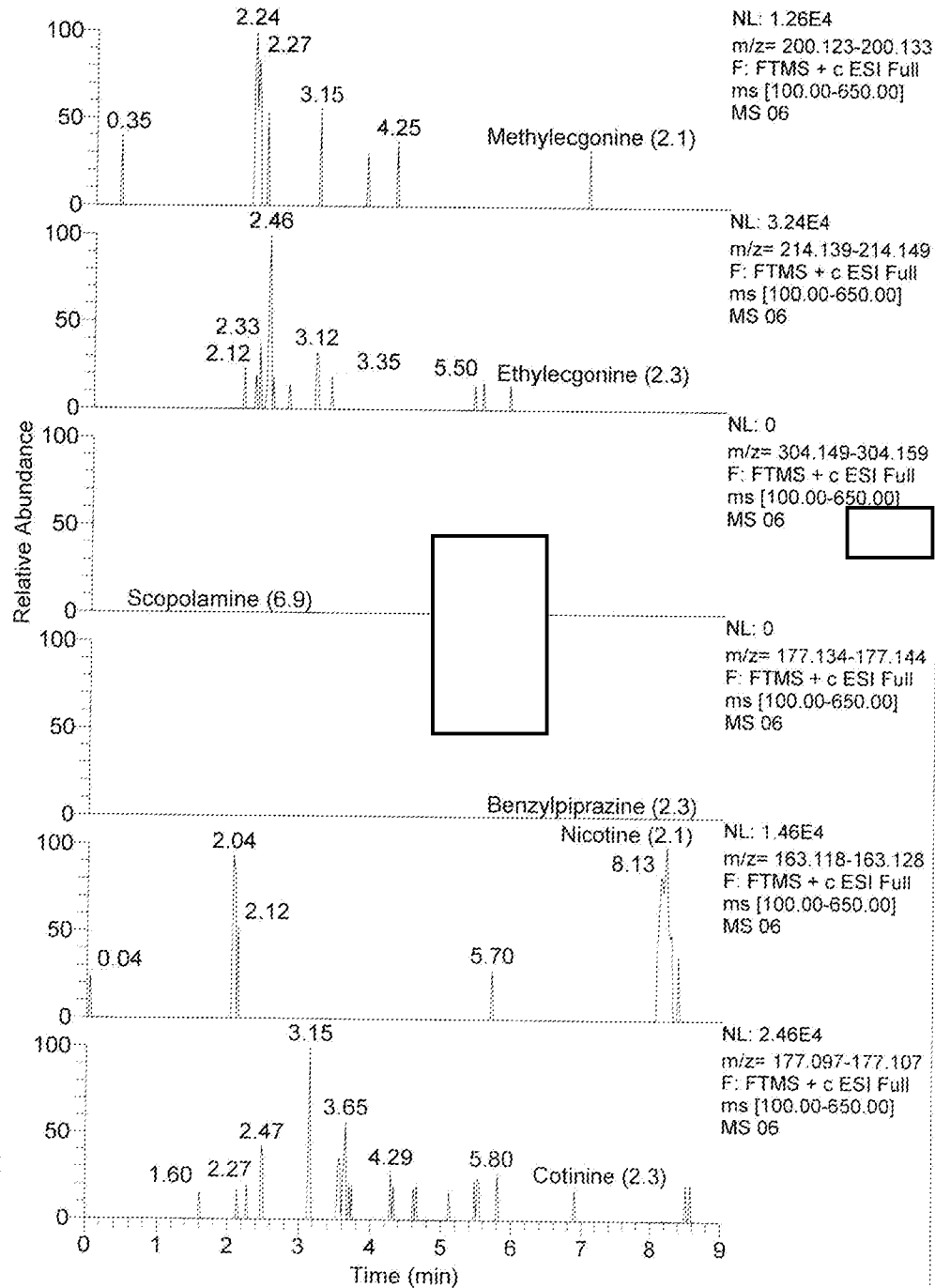
b6 -1

b7C -1

b7E -2

## Alkaline Drug Screen

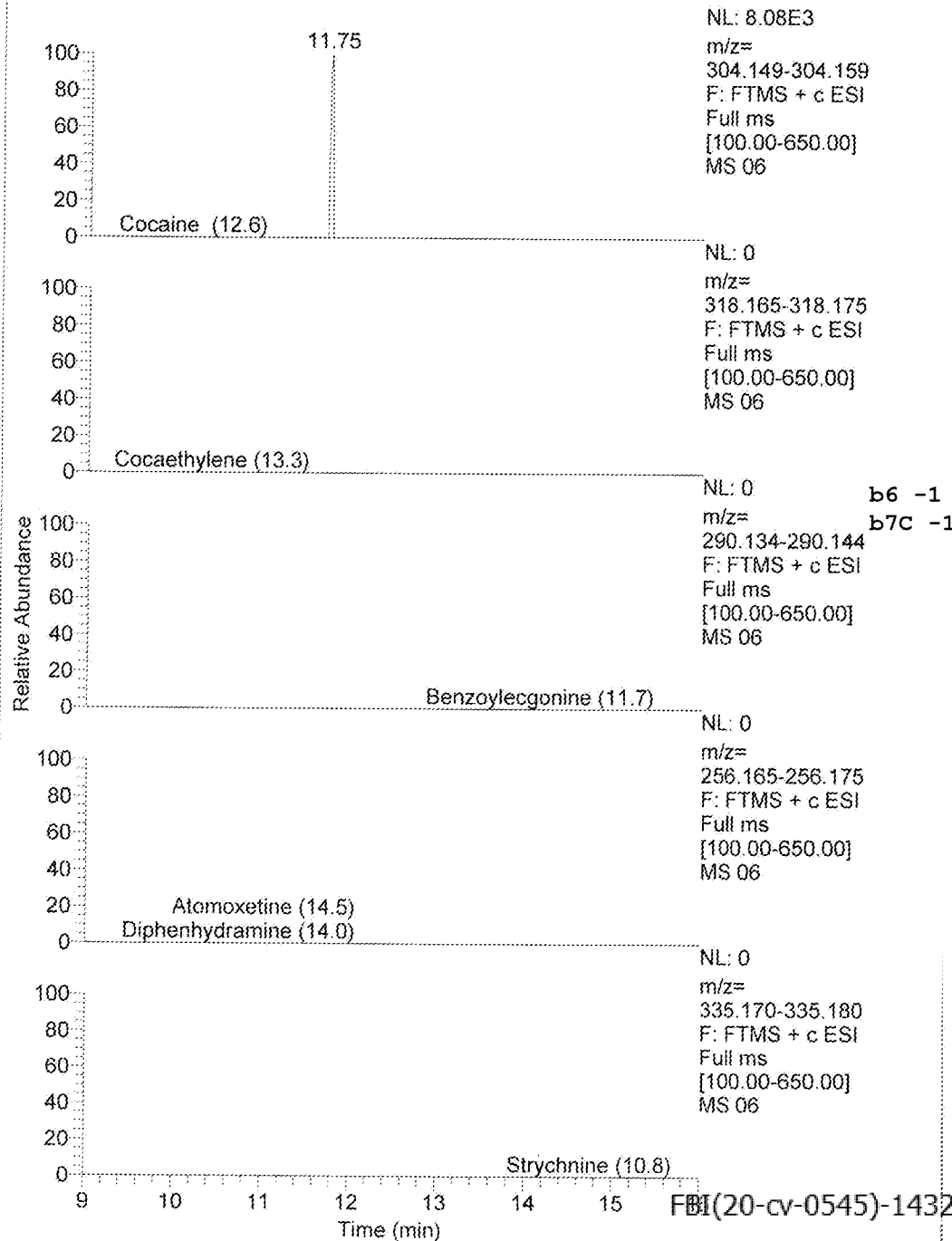
RT: 0.00 - 9.00



## LC-ESI-FTMS Data

## STIMULANTS

RT: 9.00 - 16.00



b6 -1

b7C -1

FBI(20-cv-0545)-1432



[Redacted]

10/3/2017 4:08:21 PM

2017-00469, 3, blood

b6 -1

b7C -1

b7E -2

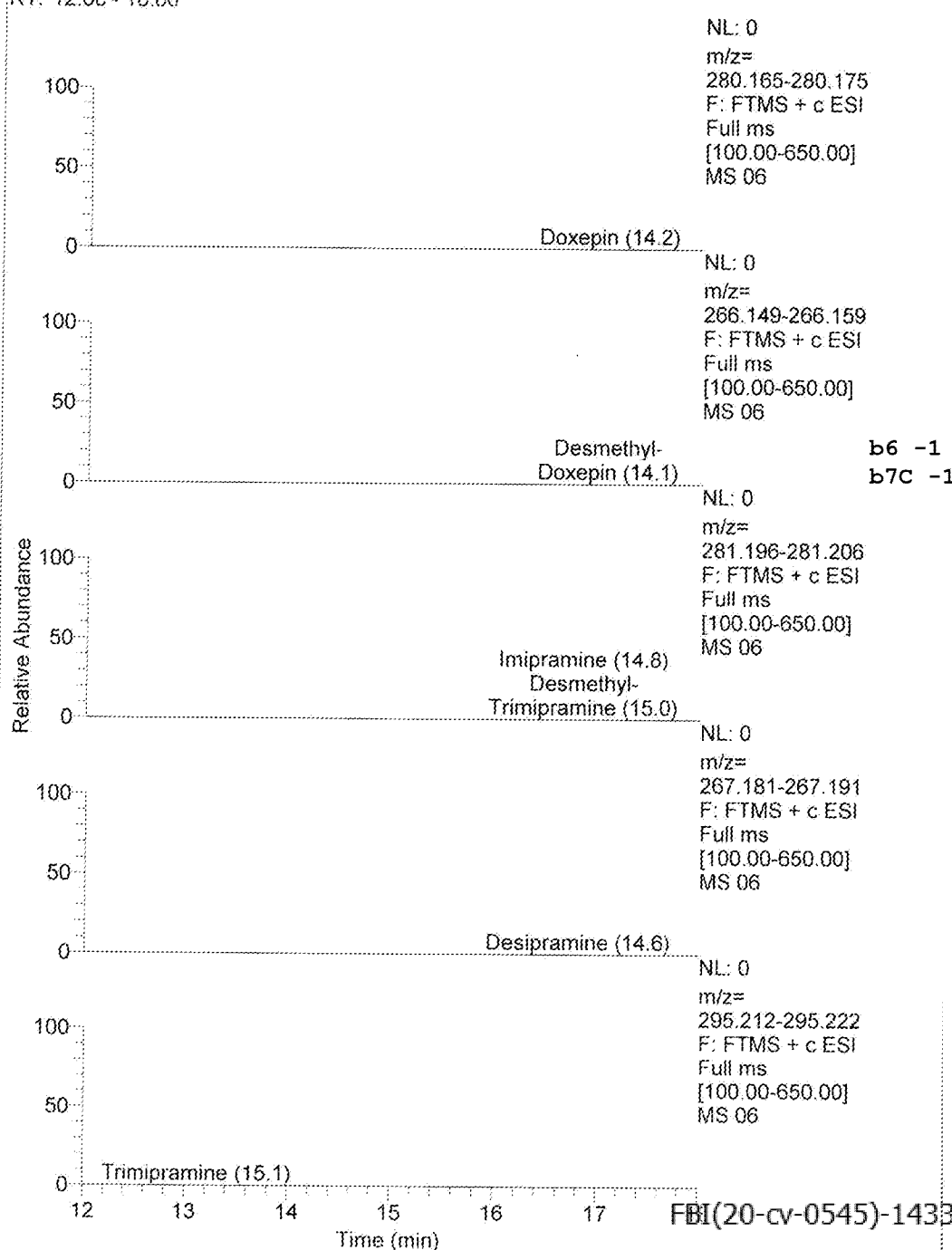
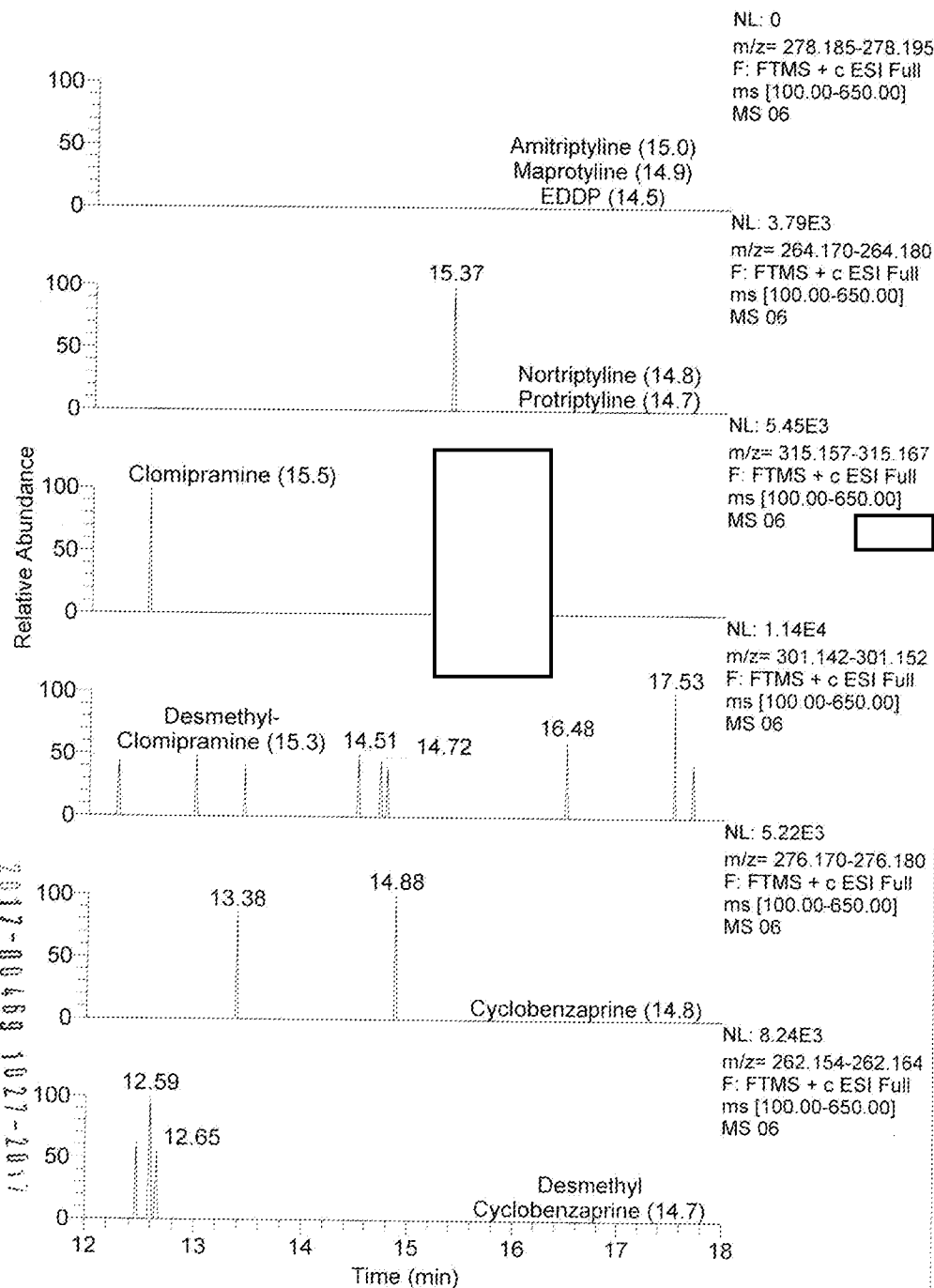
# Alkaline Drug Screen

RT: 12.00 - 18.00

## LC-ESI-FTMS Data

RT: 12.00 - 18.00

## TRICYCLICS



10/3/2017 3:30:39 PM

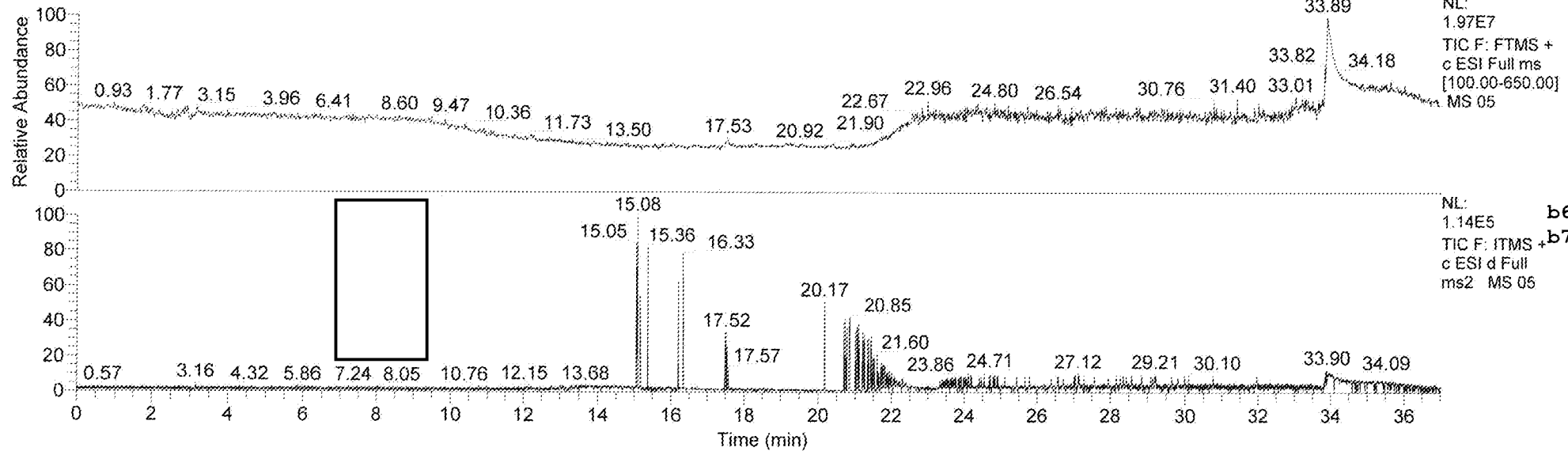
sb

b6 -1

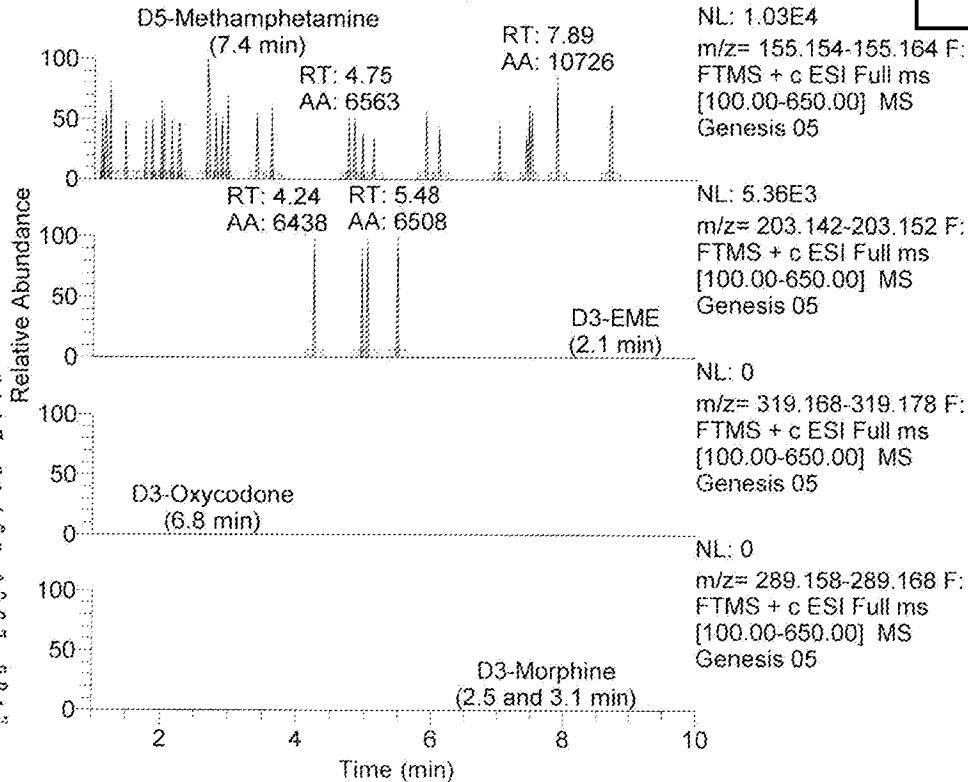
b7C -1

b7E -2

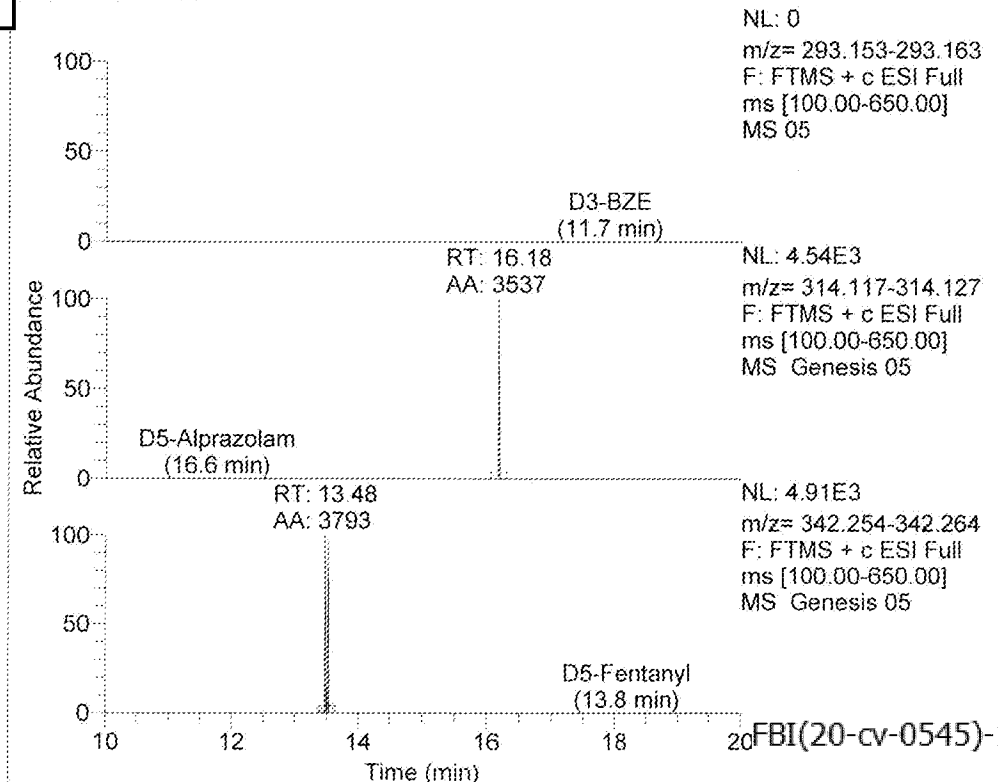
RT: 0.00 - 37.01



RT: 1.00 - 10.00



RT: 10.00 - 20.00



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FBI(20-cv-0545)-1434

10/3/2017 11:41:04 PM

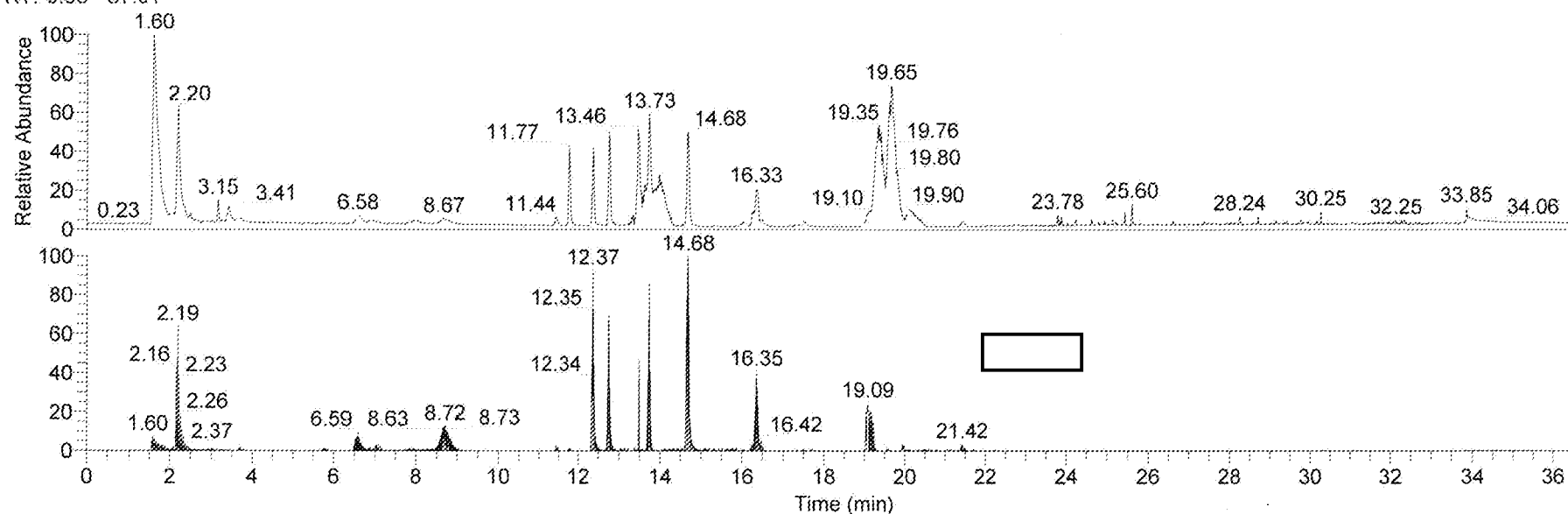
pcb

b6 -1

b7C -1

b7E -2

RT: 0.00 - 37.01



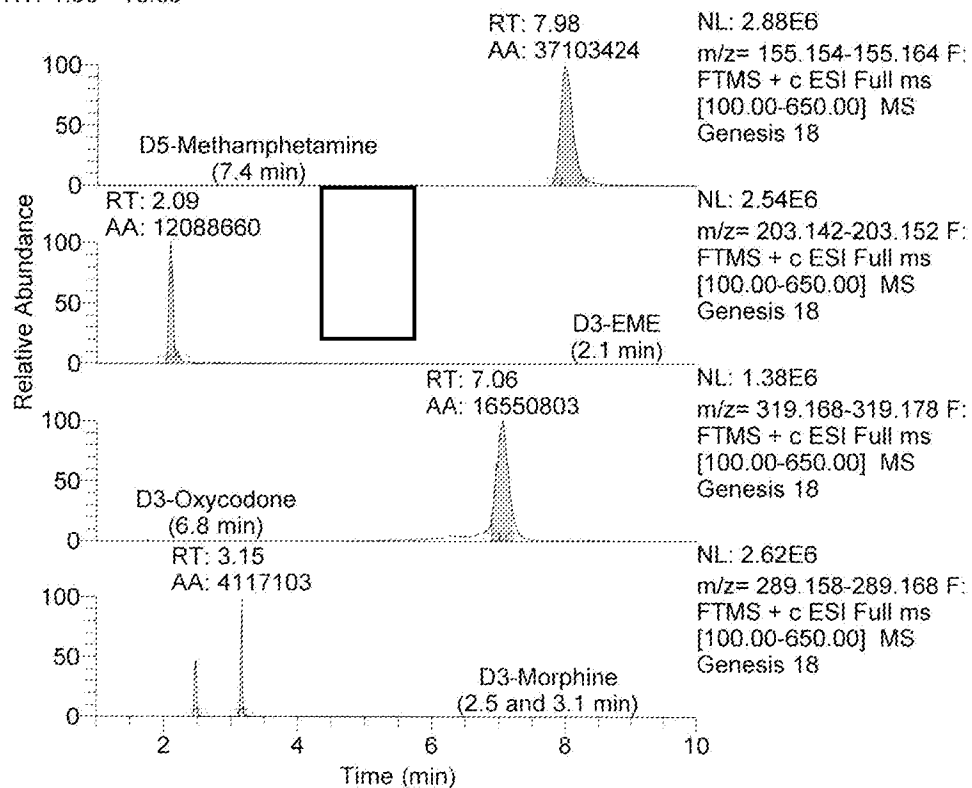
NL: 2.90E8  
TIC F: FTMS +  
c ESI Full ms  
[100.00-650.00]  
MS 18

NL: 5.69E6  
TIC F: ITMS +  
c ESI d Full  
ms2 MS 18

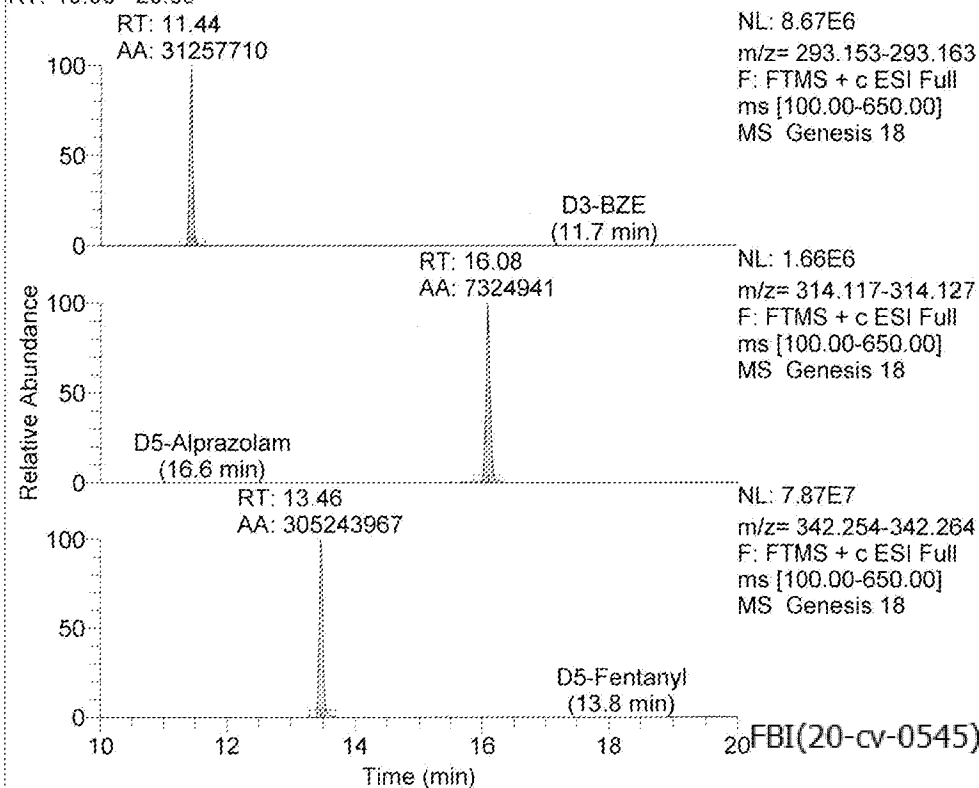
b6 -1

b7C -1

RT: 1.00 - 10.00



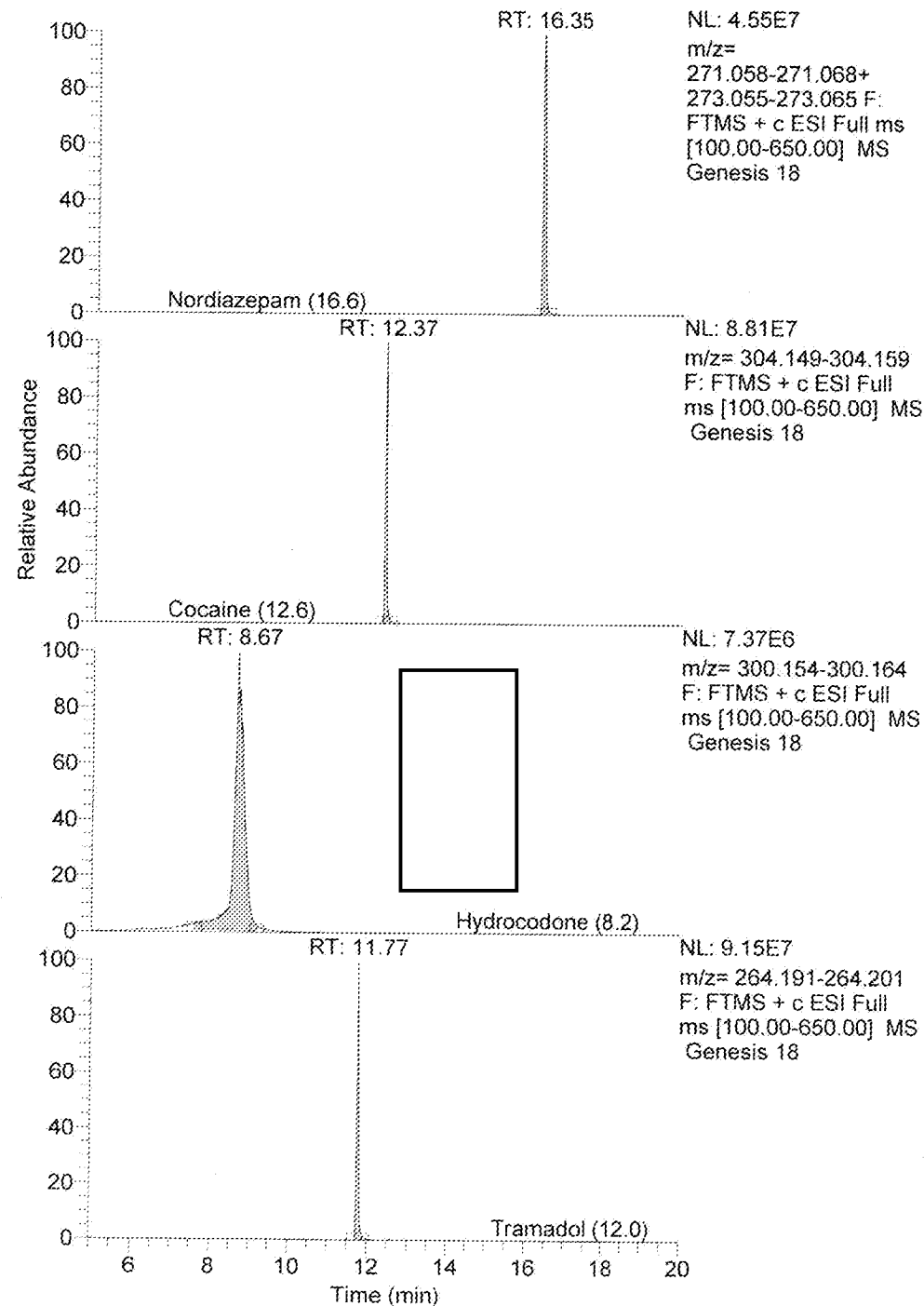
RT: 10.00 - 20.00



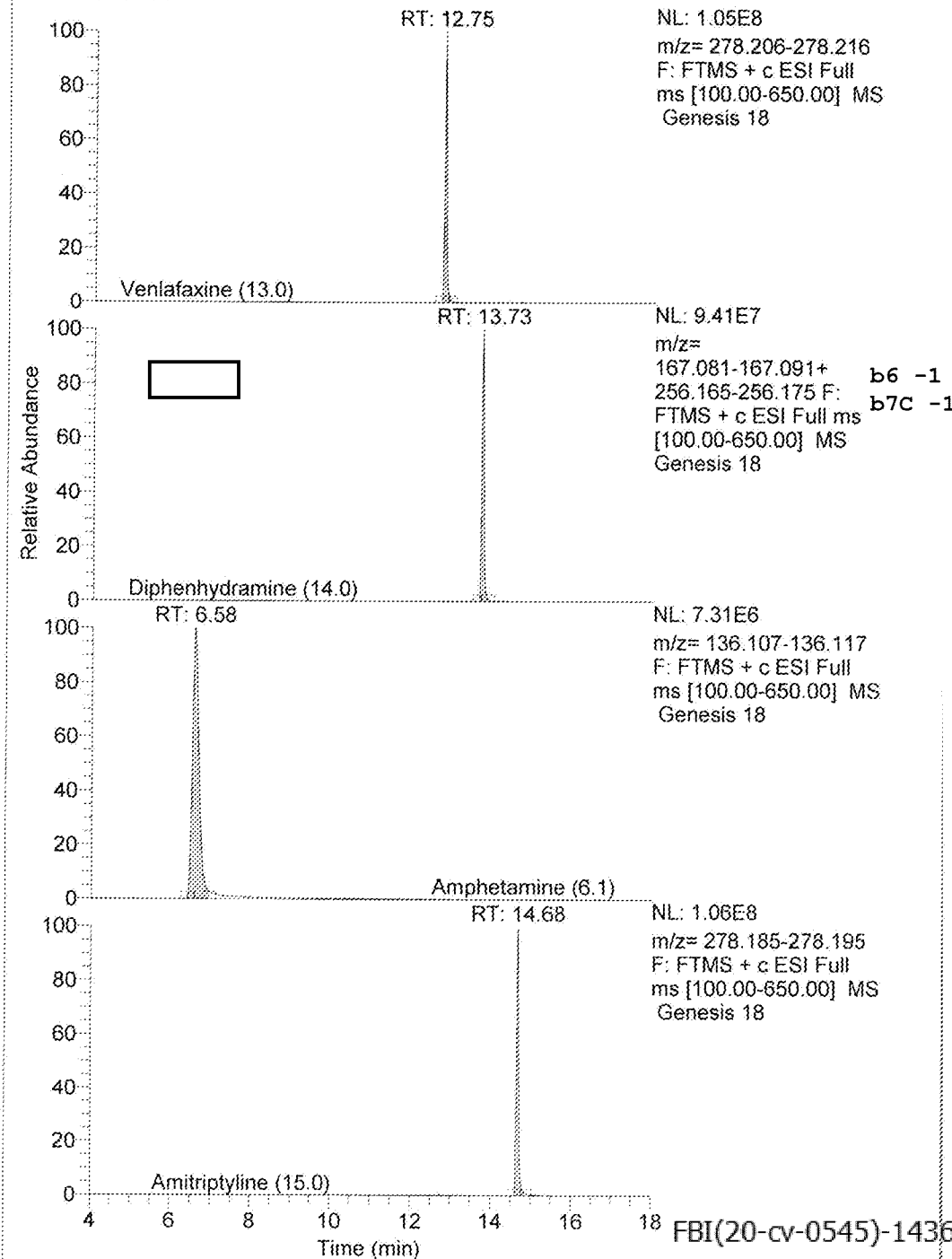
FBI(20-cv-0545)-1435

2017-00458 1027-2017

RT: 5.00 - 20.00



RT: 4.00 - 18.00



10/3/2017 2:15:13 PM

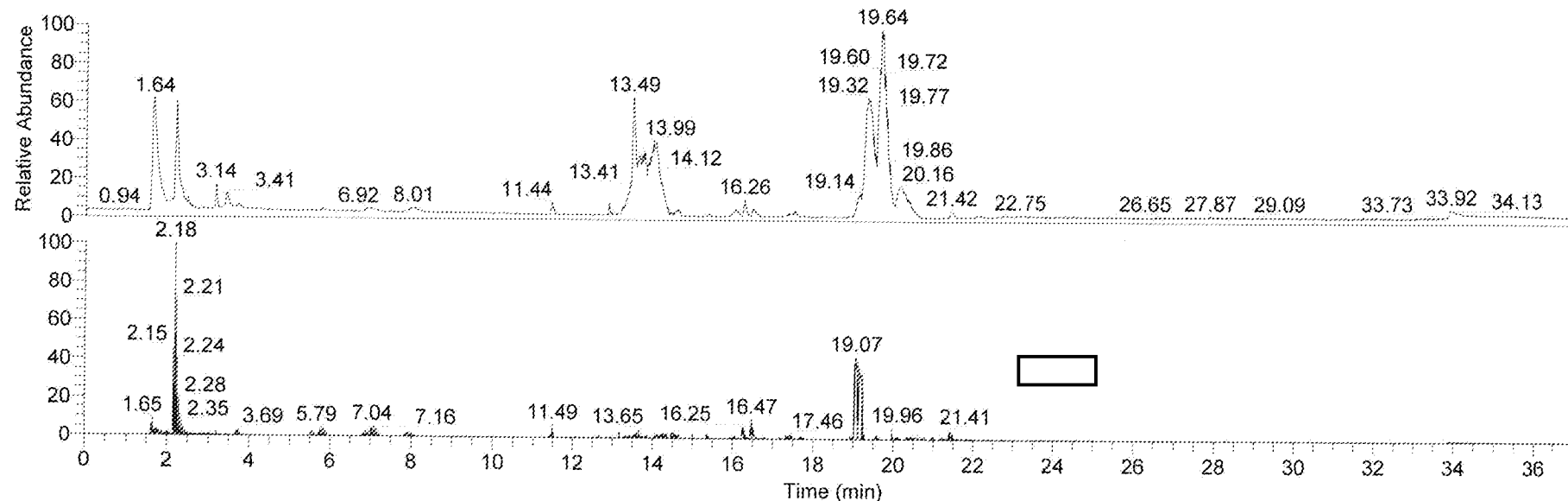
ncb

b6 -1

b7C -1

b7E -2

RT: 0.00 - 37.02



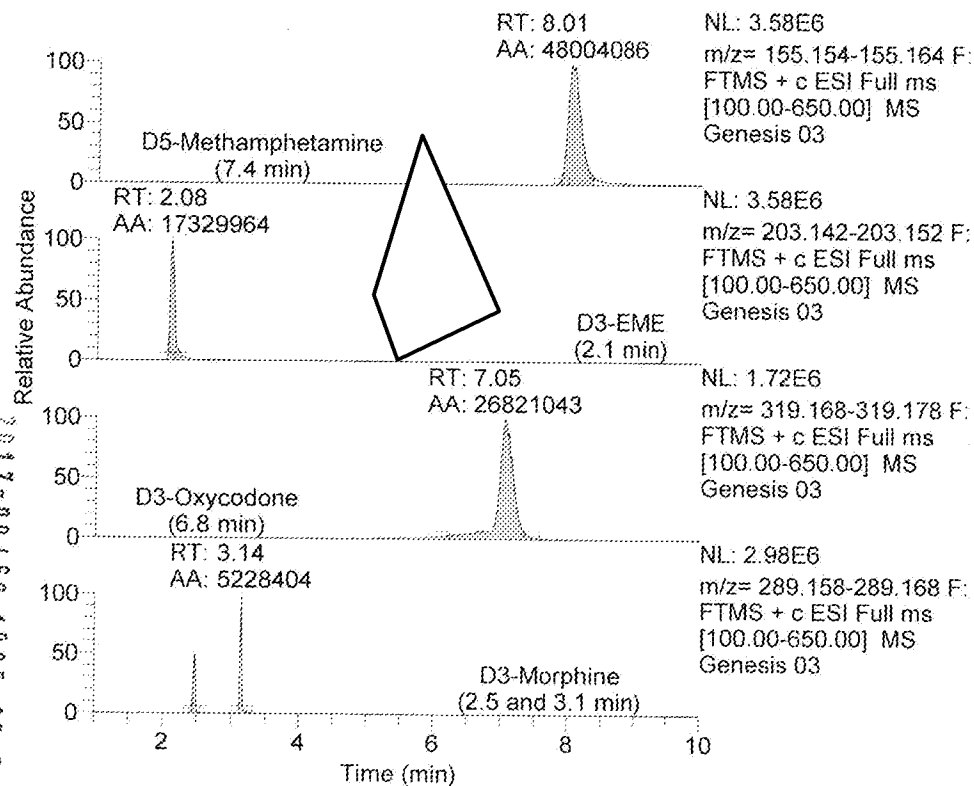
NL: 2.59E8  
TIC F: FTMS +  
c ESI Full ms  
[100.00-650.00]  
MS 03

NL: 3.32E6  
TIC F: ITMS +  
c ESI d Full  
ms2 MS 03

b6 -1

b7C -1

RT: 1.00 - 10.00



RT: 8.01  
AA: 48004086

NL: 3.58E6  
m/z= 155.154-155.164 F:  
FTMS + c ESI Full ms  
[100.00-650.00] MS  
Genesis 03

RT: 2.08  
AA: 17329964

NL: 3.58E6  
m/z= 203.142-203.152 F:  
FTMS + c ESI Full ms  
[100.00-650.00] MS  
Genesis 03

RT: 7.05  
AA: 26821043

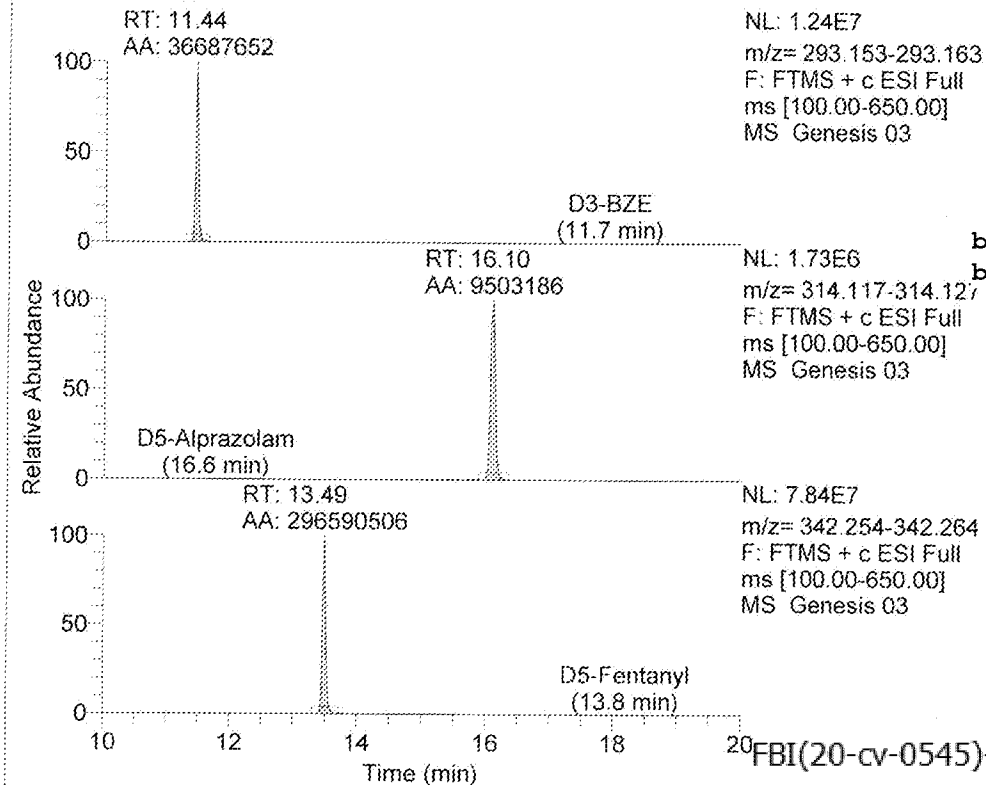
NL: 1.72E6  
m/z= 319.168-319.178 F:  
FTMS + c ESI Full ms  
[100.00-650.00] MS  
Genesis 03

RT: 3.14  
AA: 5228404

NL: 2.98E6  
m/z= 289.158-289.168 F:  
FTMS + c ESI Full ms  
[100.00-650.00] MS  
Genesis 03

D3-Morphine  
(2.5 and 3.1 min)

RT: 10.00 - 20.00



RT: 11.44  
AA: 36687652

NL: 1.24E7  
m/z= 293.153-293.163  
F: FTMS + c ESI Full  
ms [100.00-650.00]  
MS Genesis 03

RT: 16.10  
AA: 9503186

NL: 1.73E6  
m/z= 314.117-314.127  
F: FTMS + c ESI Full  
ms [100.00-650.00]  
MS Genesis 03

RT: 13.49  
AA: 296590506

NL: 7.84E7  
m/z= 342.254-342.264  
F: FTMS + c ESI Full  
ms [100.00-650.00]  
MS Genesis 03

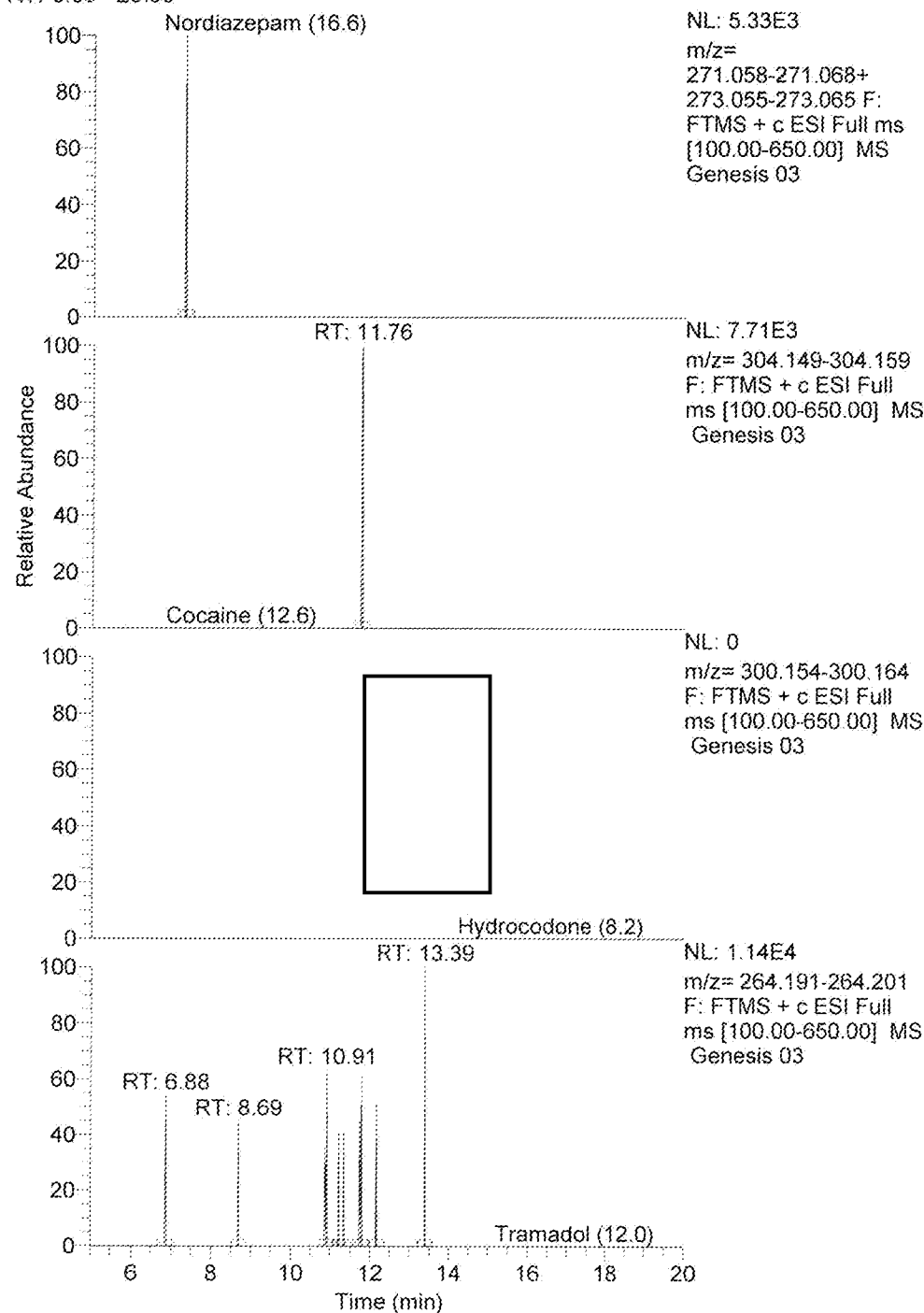
D5-Fentanyl  
(13.8 min)

b6 -1

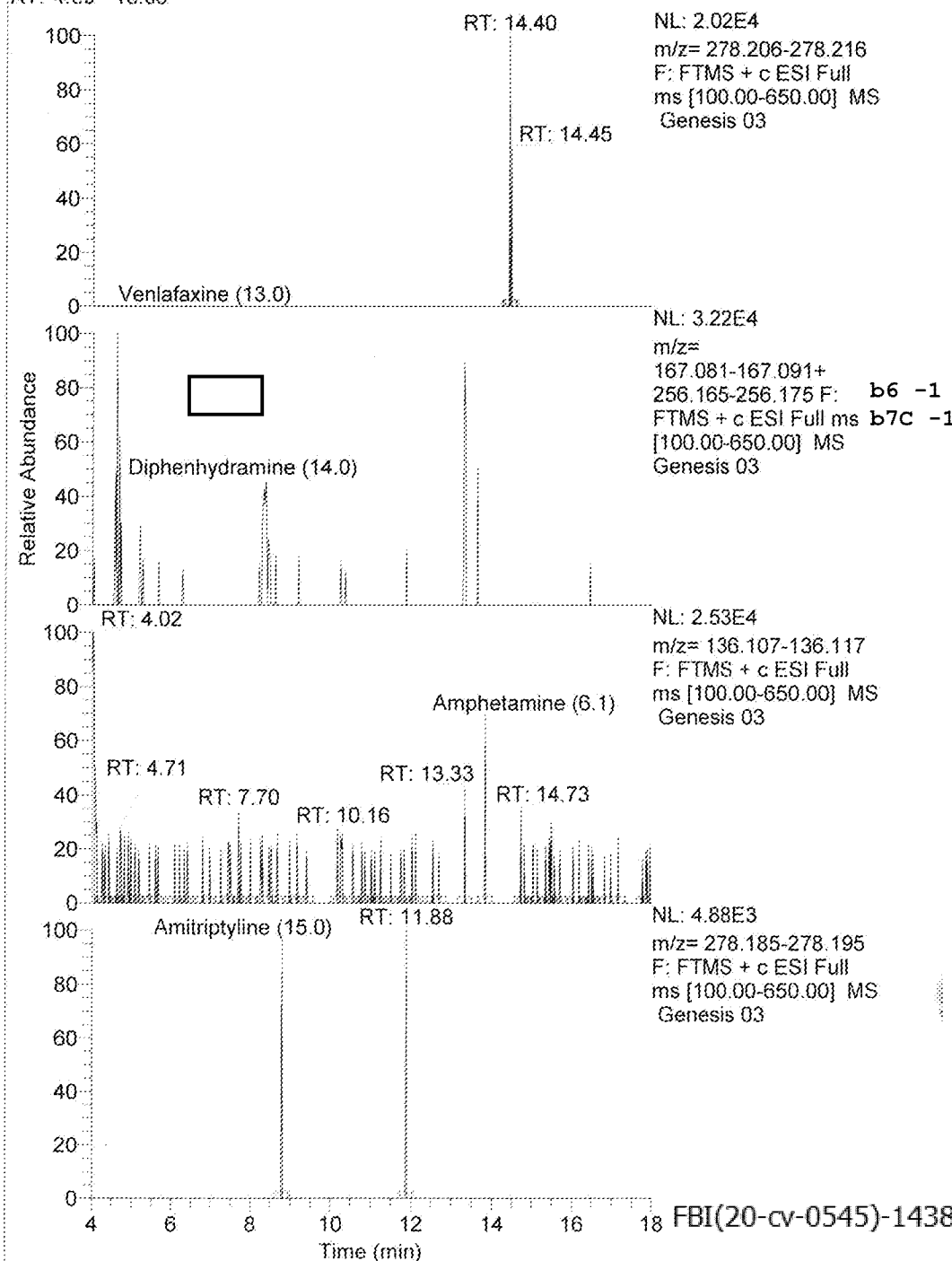
b7C -1

FBI(20-cv-0545)-1437

RT: 5.00 - 20.00



RT: 4.00 - 18.00



10/4/2017 2:11:54 AM

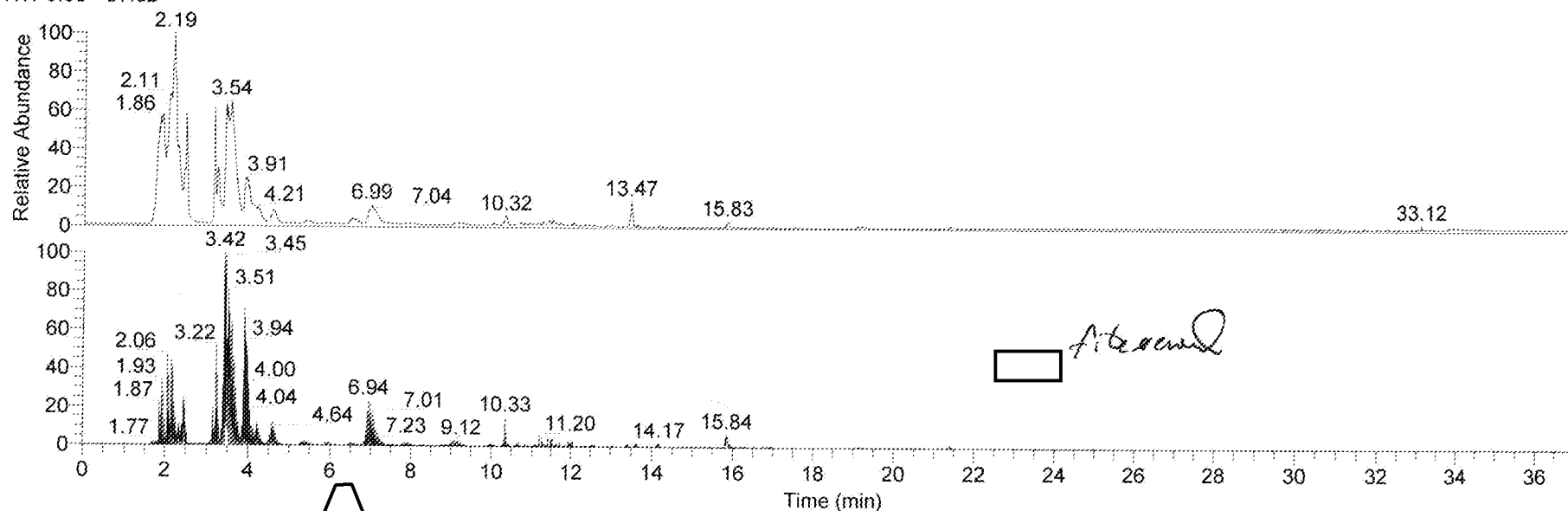
2017-00469, 2, urine

b6 -1

b7C -1

b7E -2

RT: 0.00 - 37.02



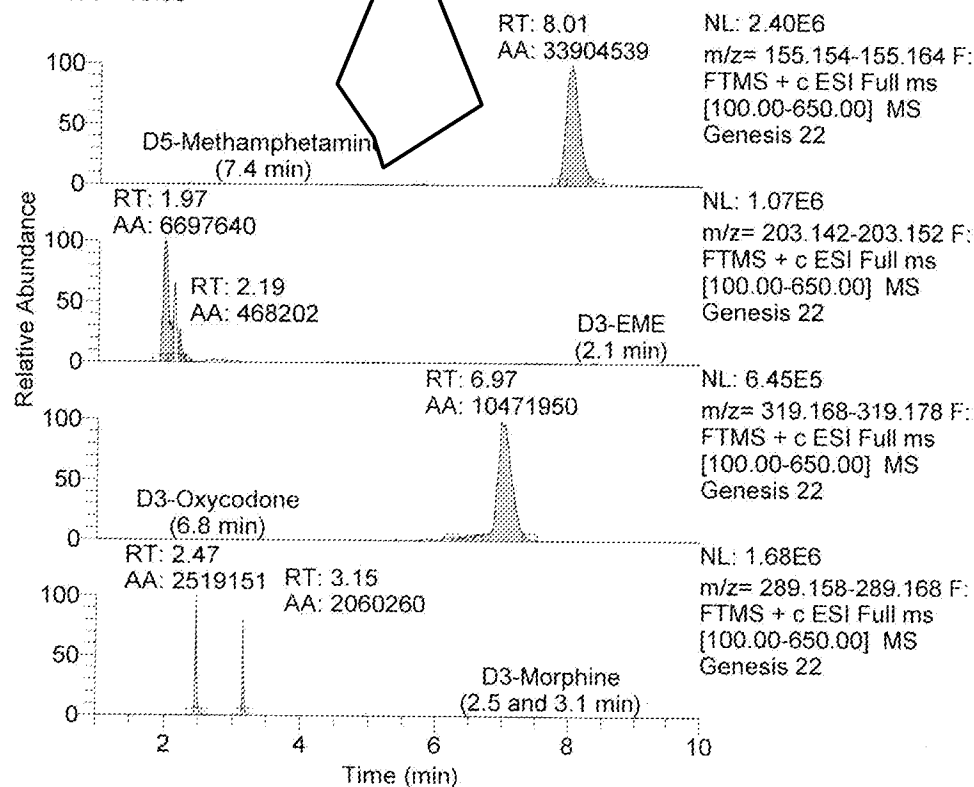
NL: 1.04E9  
TIC F: FTMS +  
c ESI Full ms  
[100.00-650.00]  
MS 22

NL: 1.49E7  
TIC F: ITMS +  
c ESI d Full  
ms2 MS 22

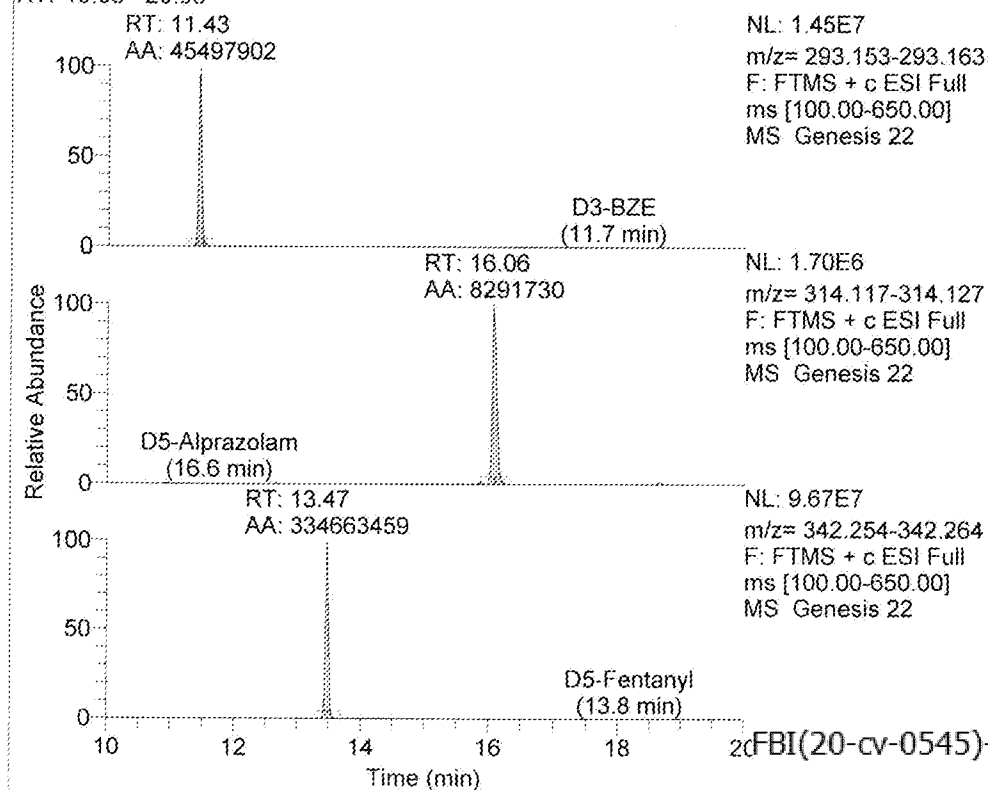
b6 -1

b7C -1

RT: 1.00 - 10.00



RT: 10.00 - 20.00



2(FBI(20-cv-0545)-1439

[Redacted]

10/4/2017 2:11:54 AM

2017-00469, 2, urine

b6 -1

b7C -1

b7E -2

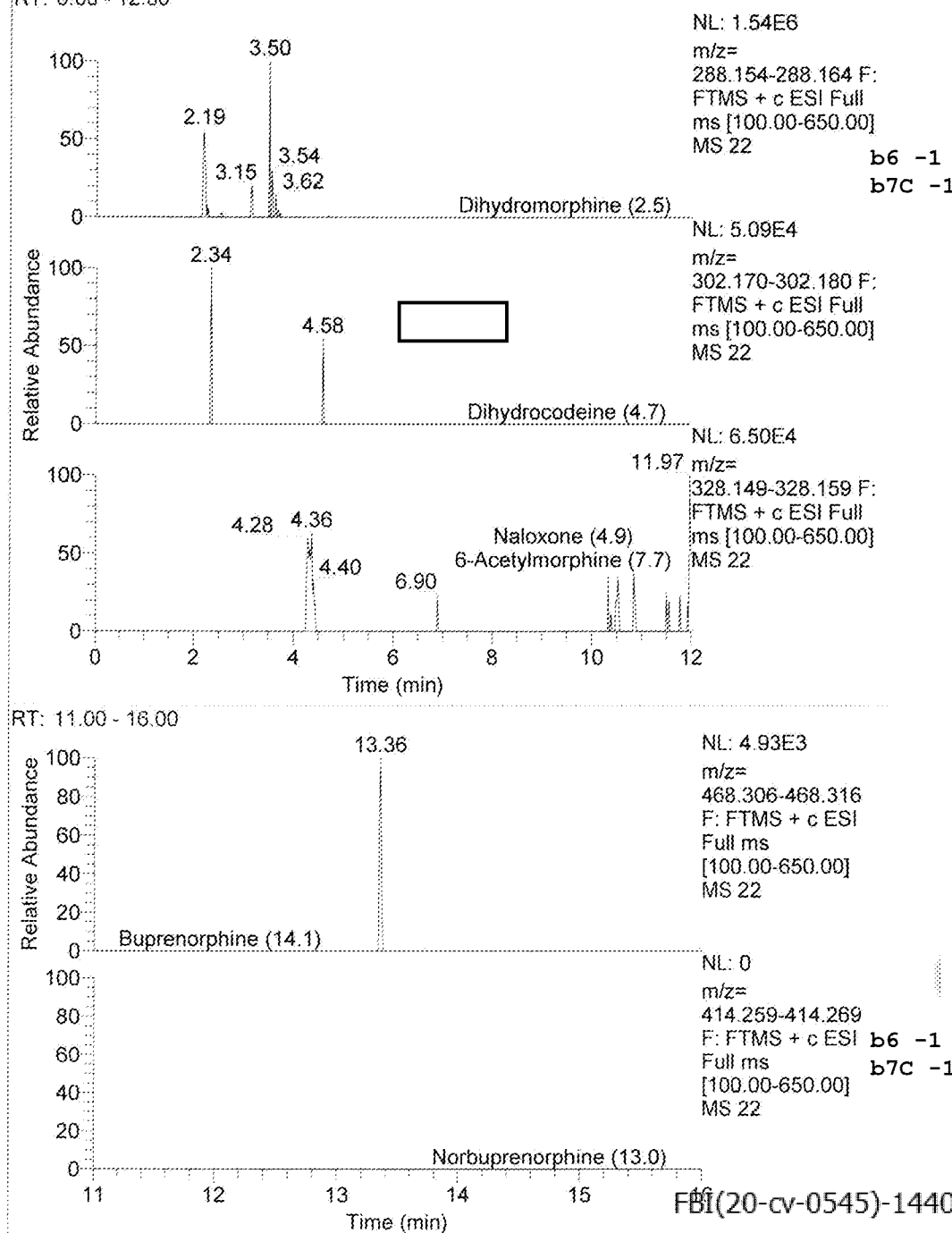
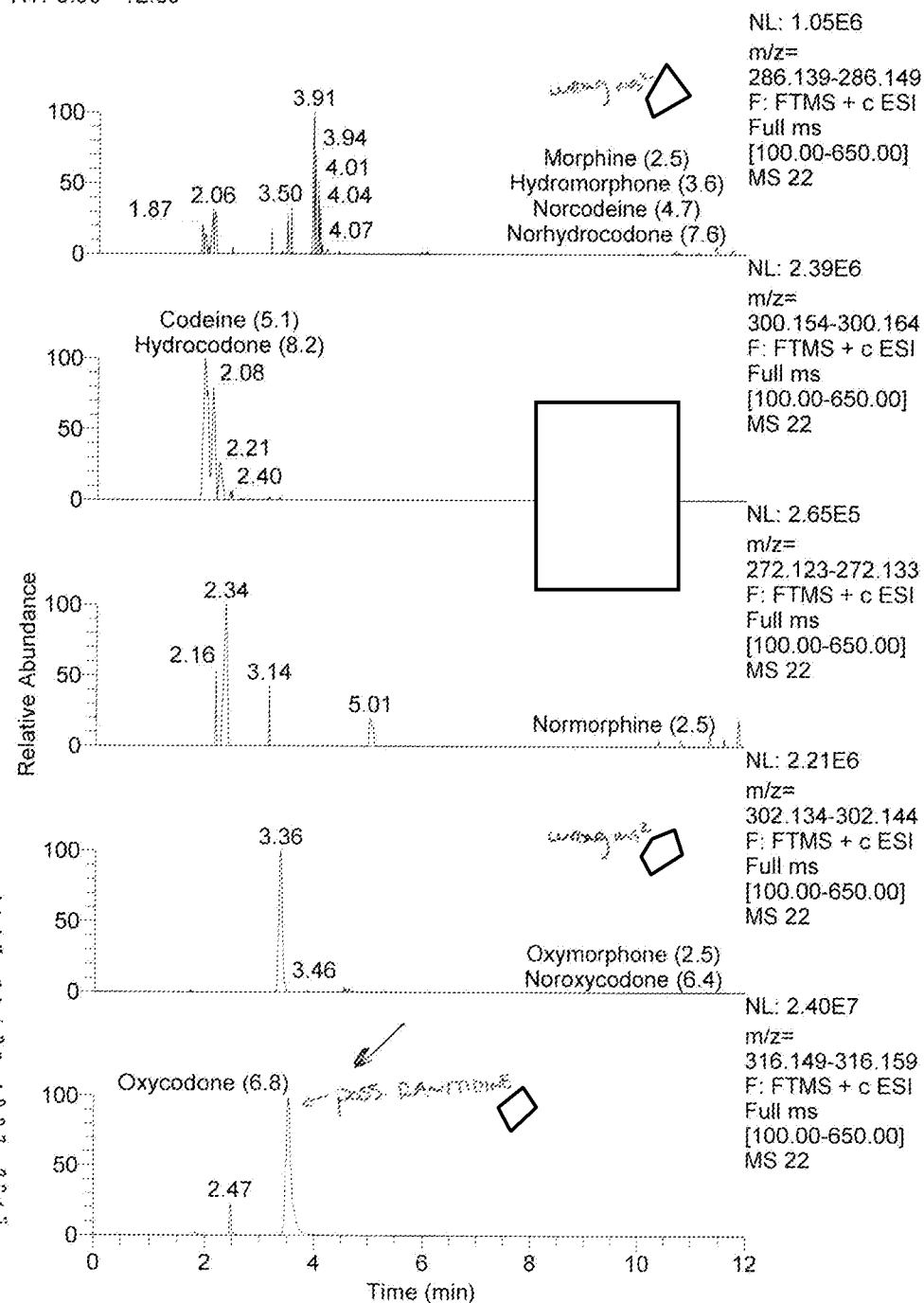
Alkaline Drug Screen

RT: 0.00 - 12.00

LC-ESI-FTMS Data

ANALGESICS - PART 1

RT: 0.00 - 12.00





10/4/2017 2:11:54 AM

2017-00469, 2, urine

b6 -1

b7C -1

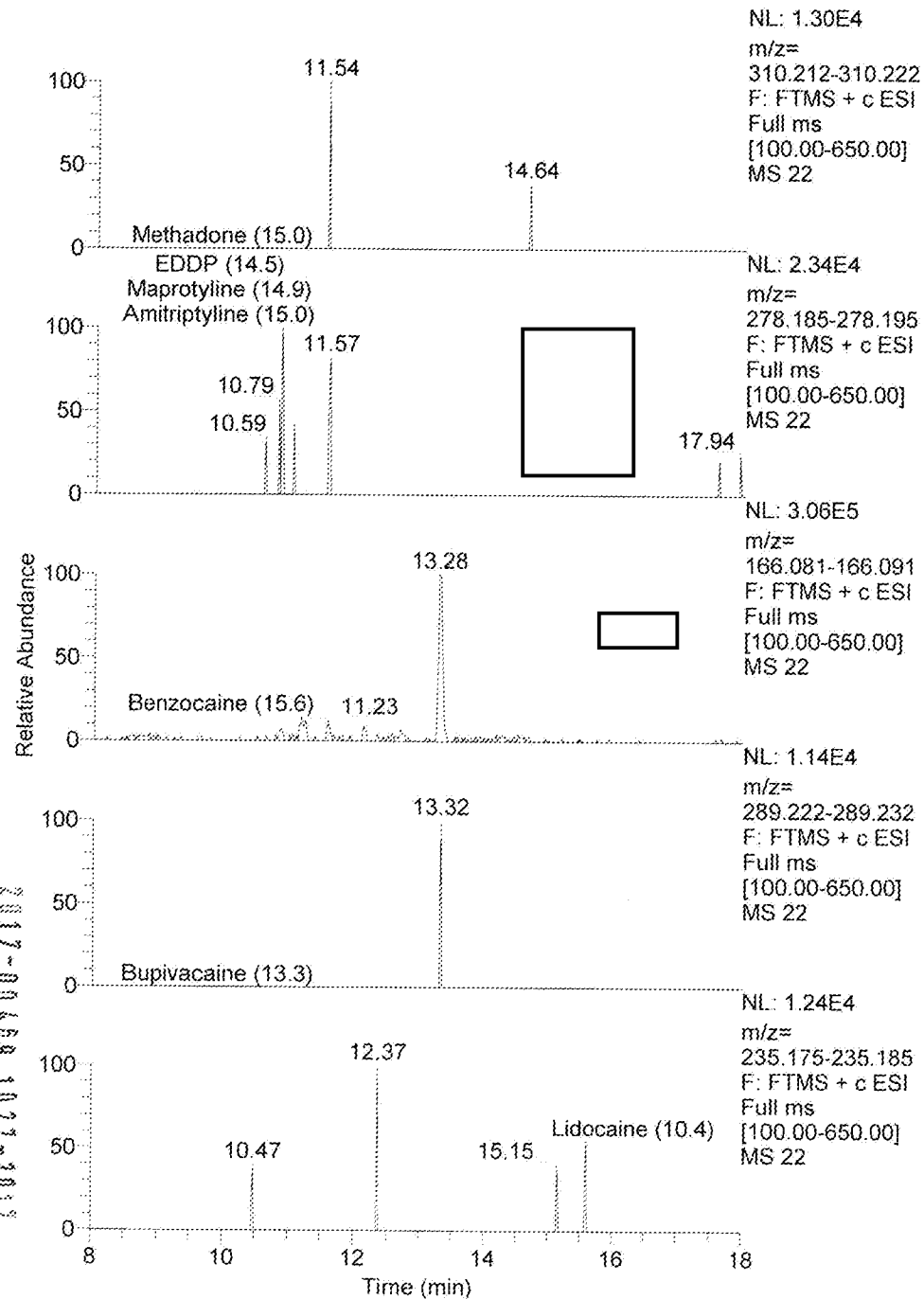
b7E -2

## Alkaline Drug Screen

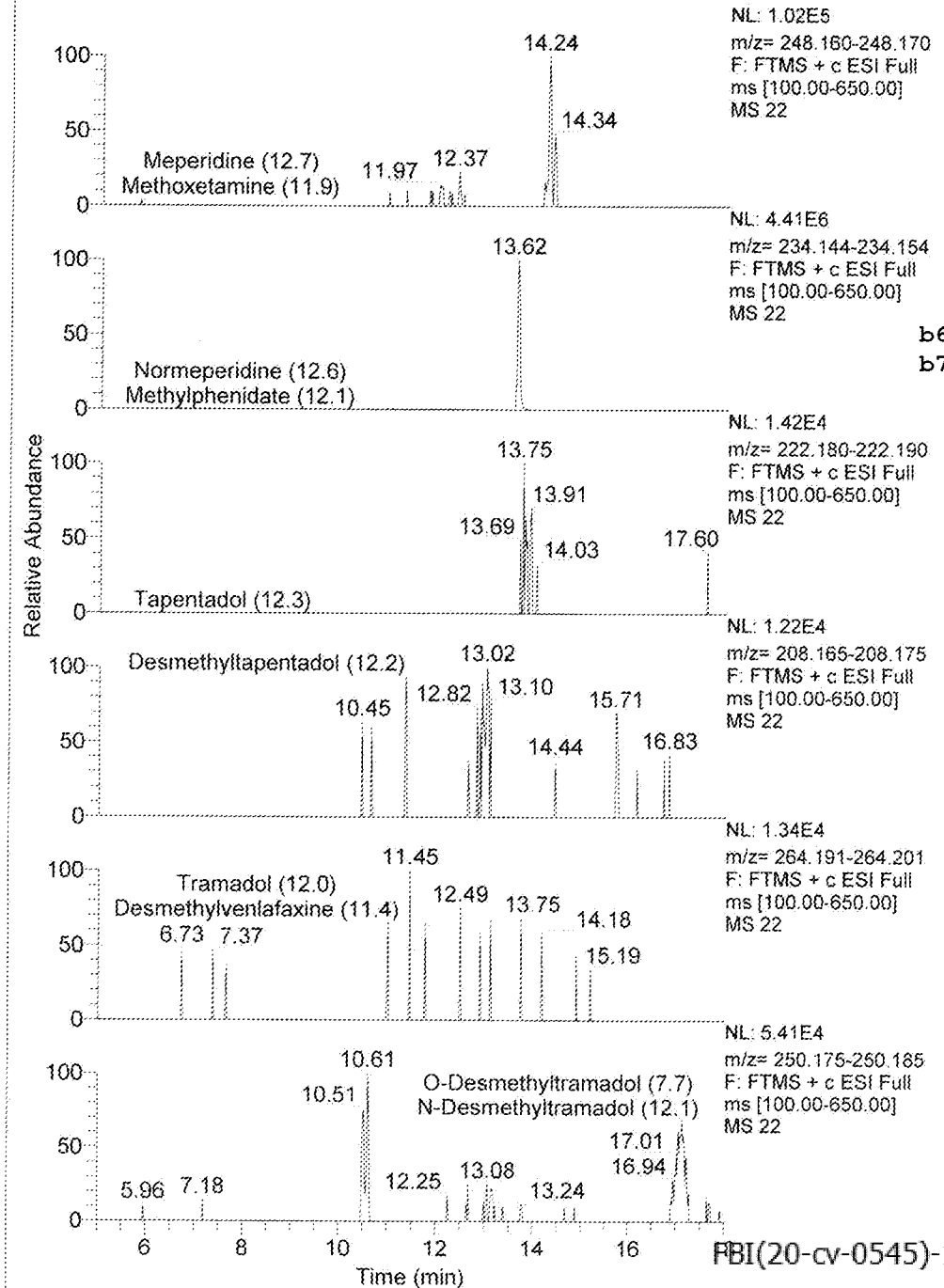
RT: 8.00 - 18.00

## LC-ESI-FTMS Data

## ANALGESICS-PART 2



RT: 5.00 - 18.00



b6 -1

b7C -1

FBI(20-cv-0545)-1441

10/4/2017 2:11:54 AM

2017-00469, 2, urine

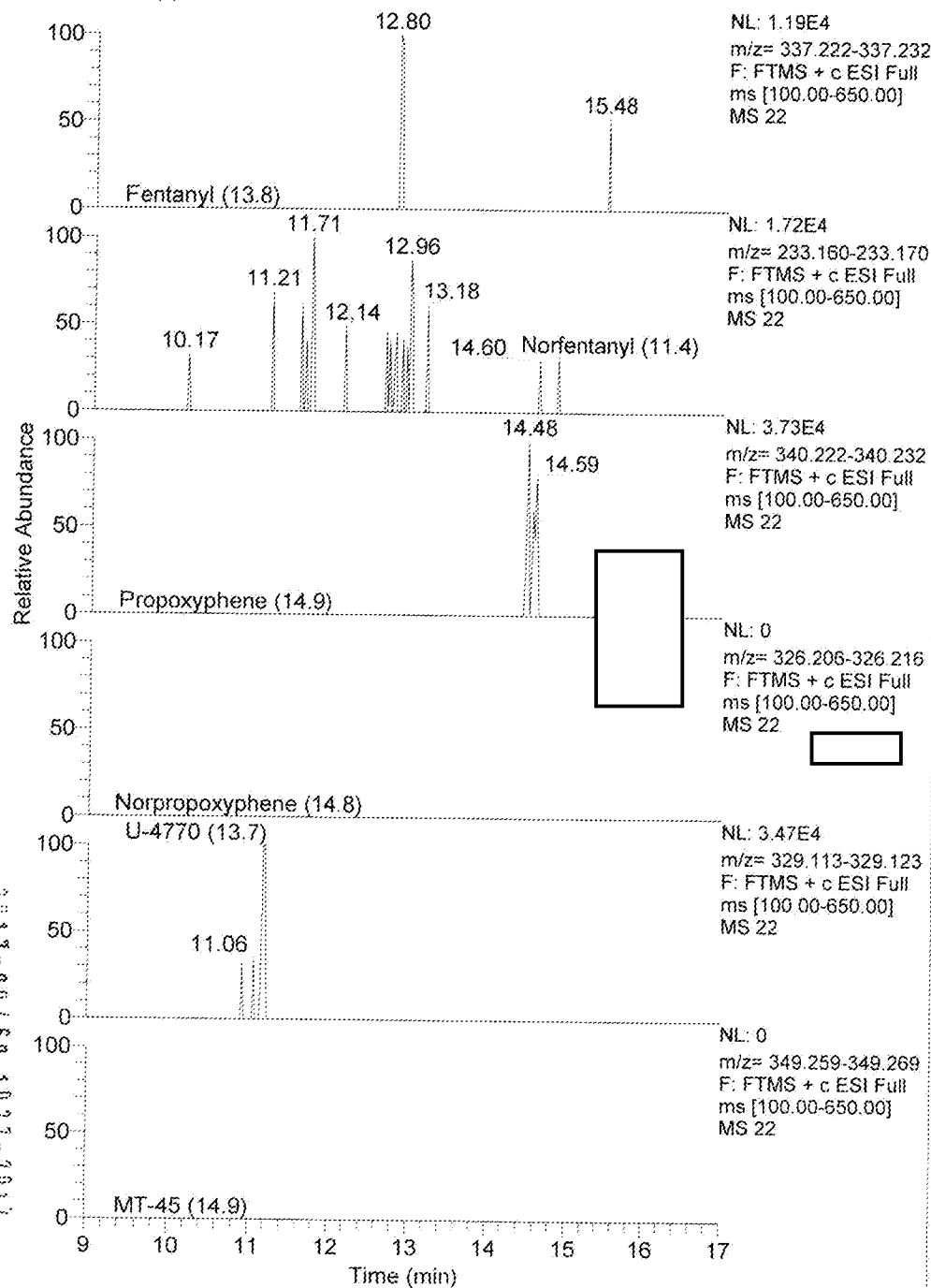
b6 -1

b7C -1

b7E -2

## Alkaline Drug Screen

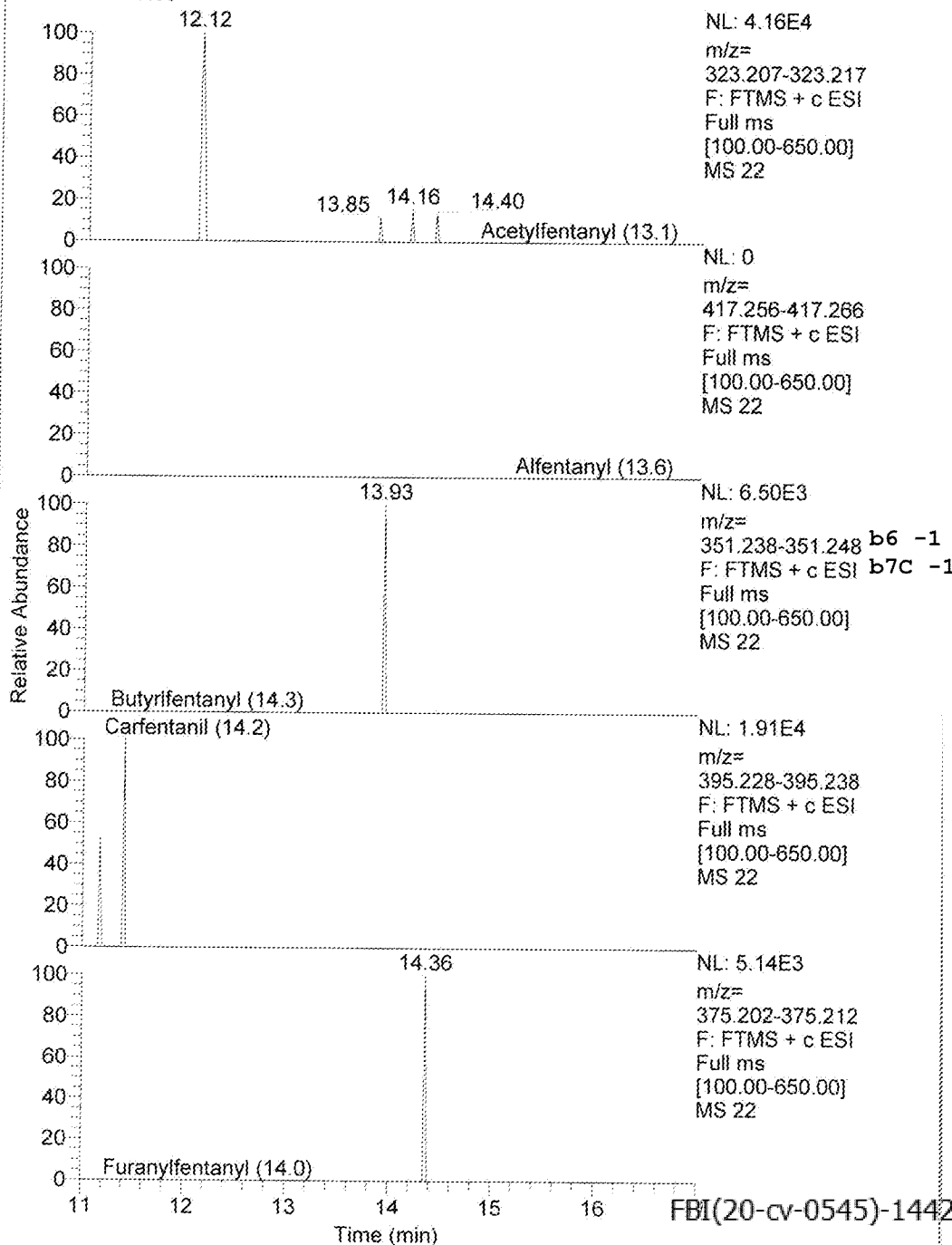
RT: 9.00 - 17.00



## LC-ESI-FTMS Data

## ANALGESICS-PART 3

RT: 11.00 - 17.00



FBI(20-cv-0545)-1442

[Redacted]

10/4/2017 2:11:54 AM

2017-00469, 2, urine

b6 -1

b7C -1

b7E -2

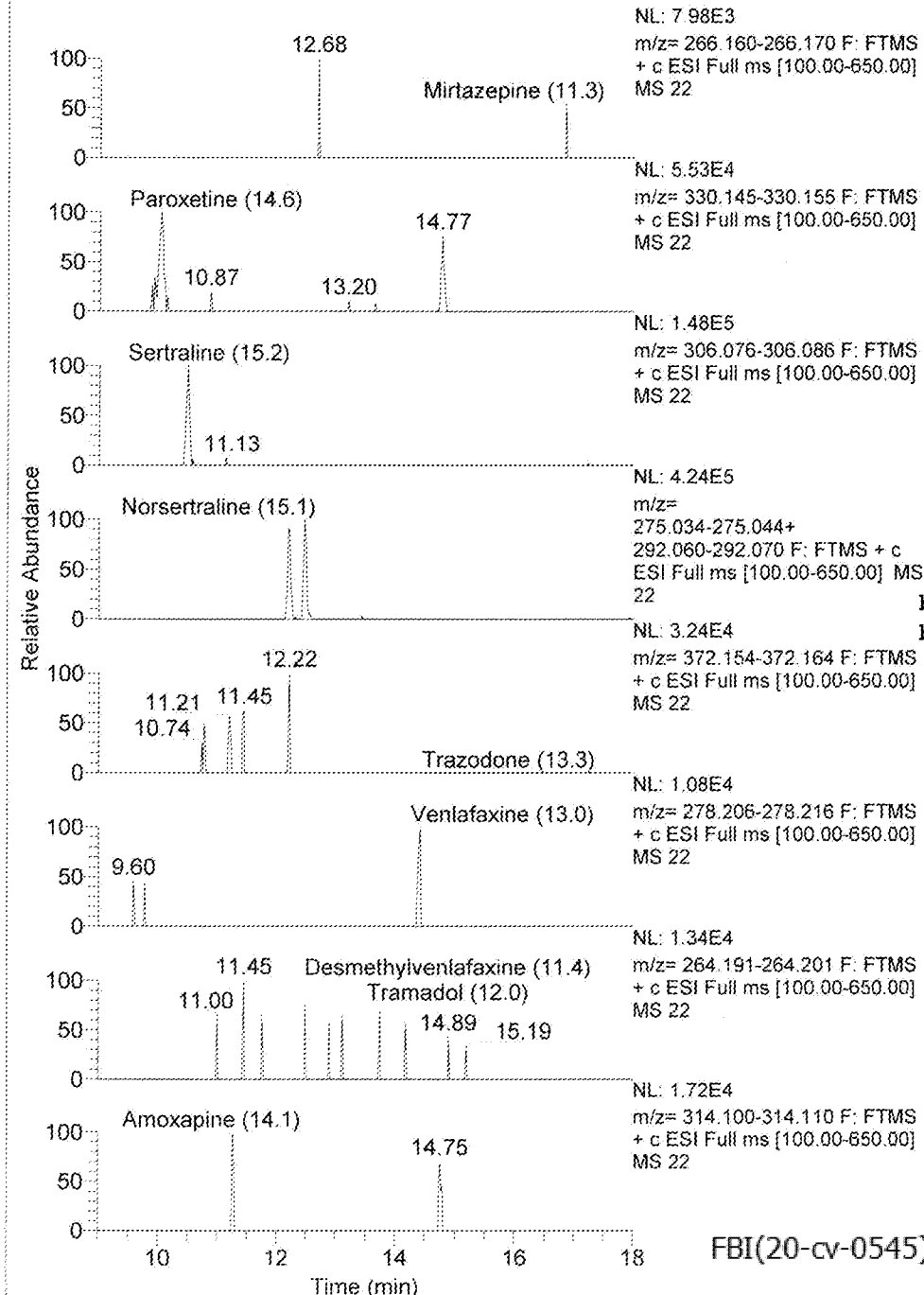
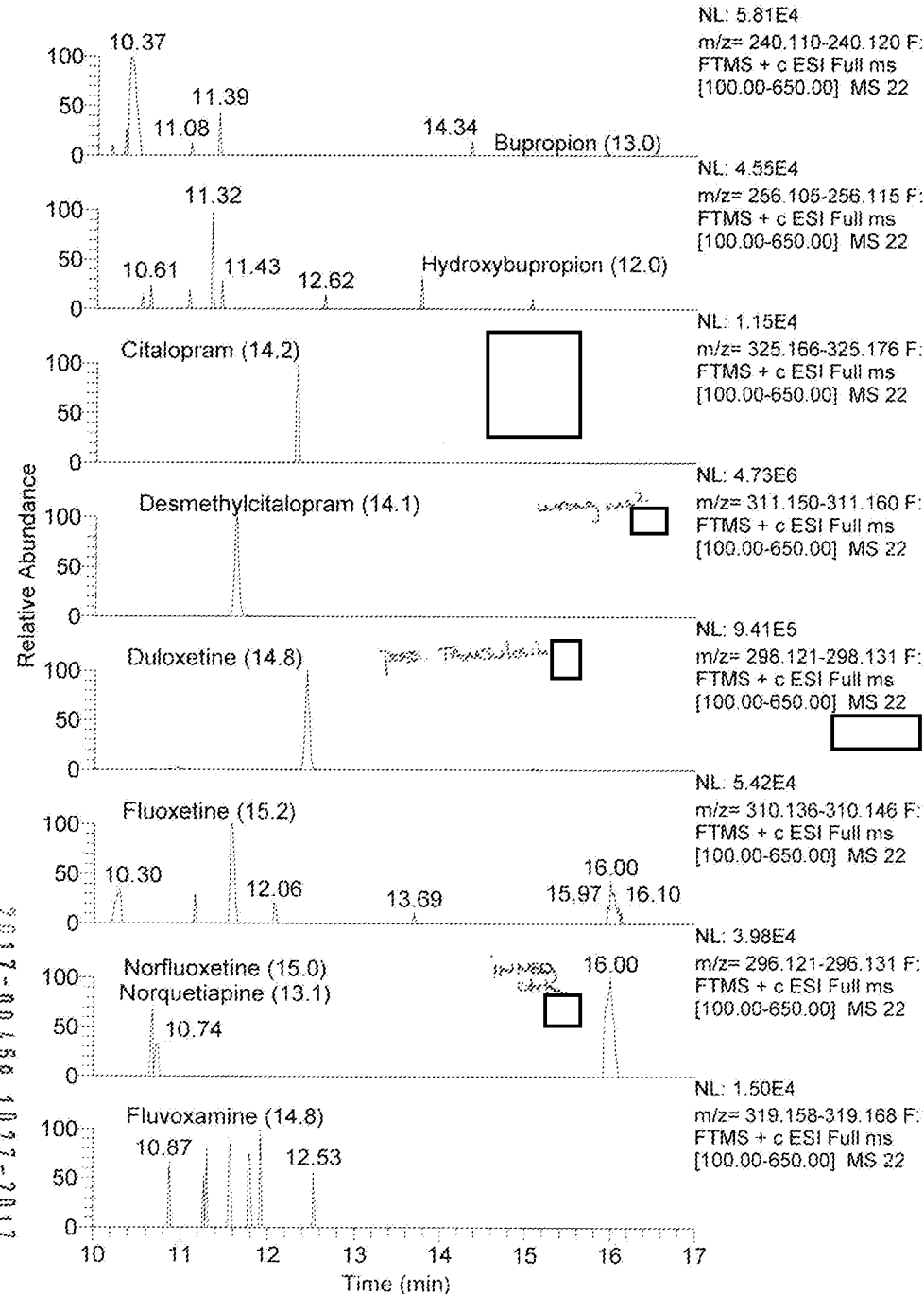
Alkaline Drug Screen

RT: 10.00 - 17.00

LC-ESI-FTMS Data

RT: 9.00 - 18.00

ANTIDEPRESSANTS



FBI(20-cv-0545)-1443

10/4/2017 2:11:54 AM

2017-00469, 2, urine

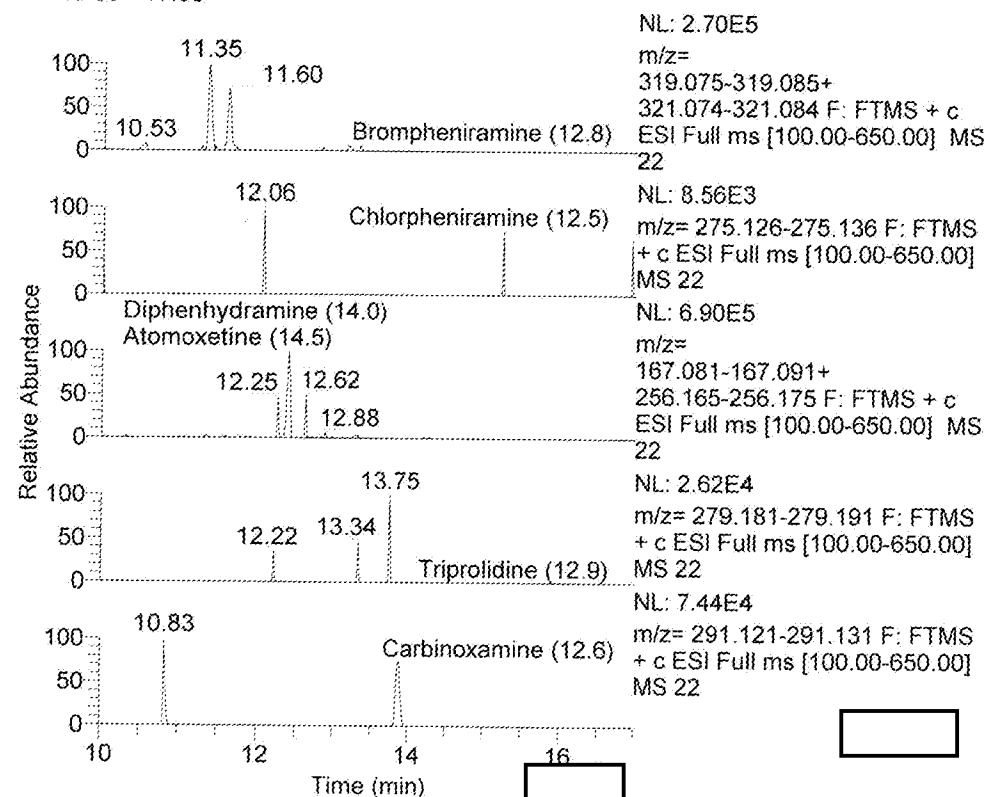
b6 -1

b7C -1

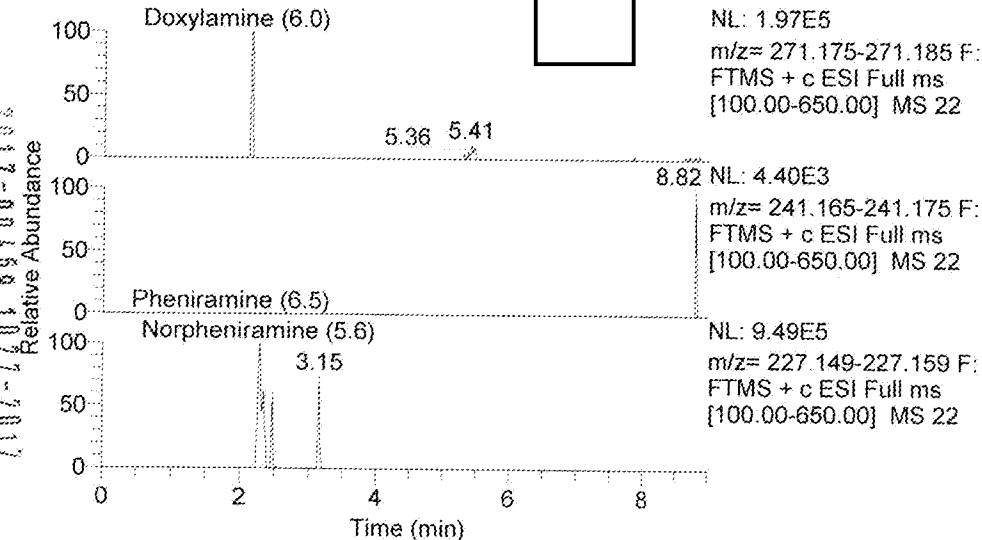
b7E -2

## Alkaline Drug Screen

RT: 10.00 - 17.00



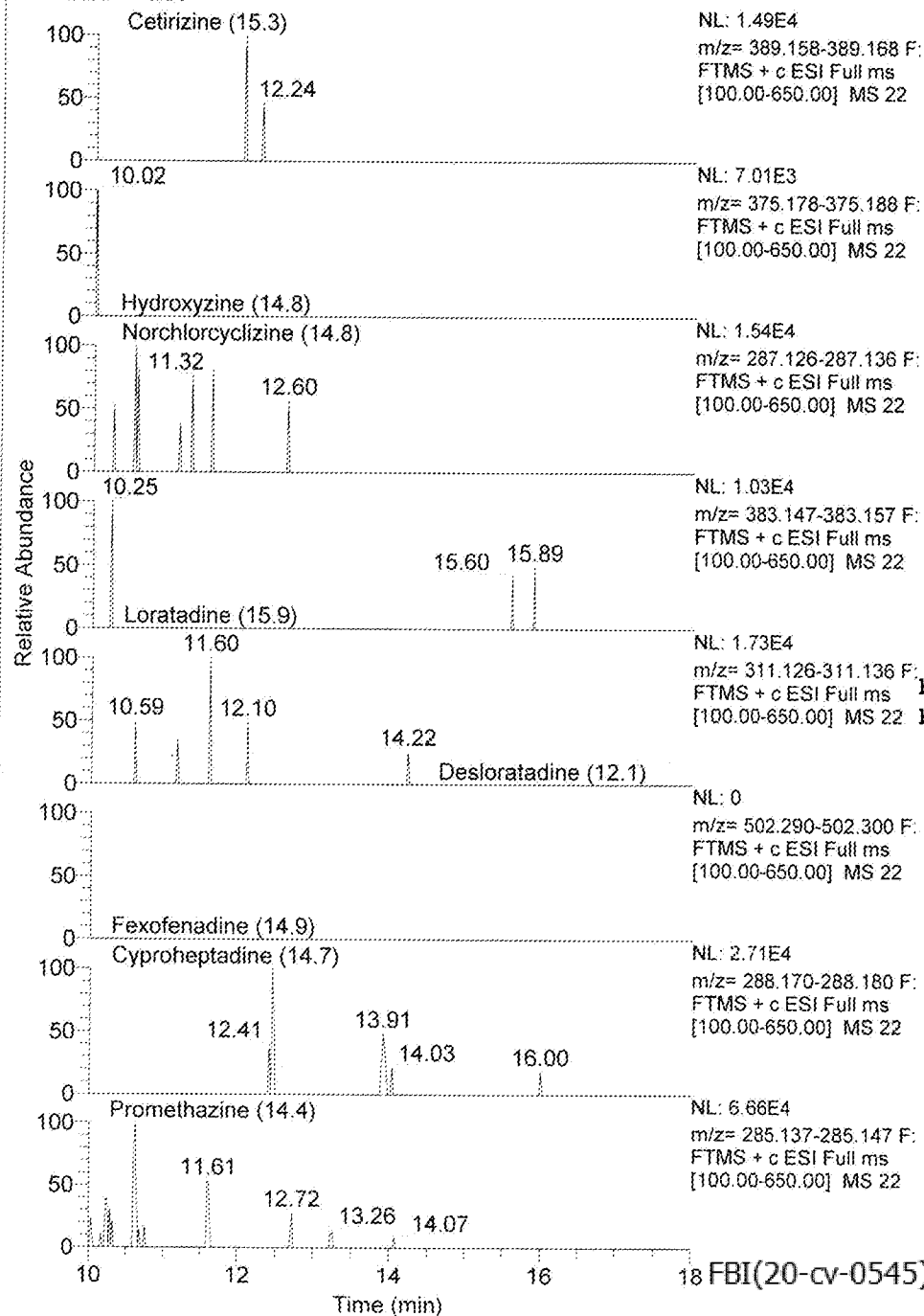
RT: 0.00 - 9.00



## LC-ESI-FTMS Data

## ANTI-HISTAMINES

RT: 10.00 - 18.00



b6 -1

b7C -1

FBI(20-cv-0545)-1444

10/4/2017 2:11:54 AM

2017-00469, 2, urine

b6 -1

b7C -1

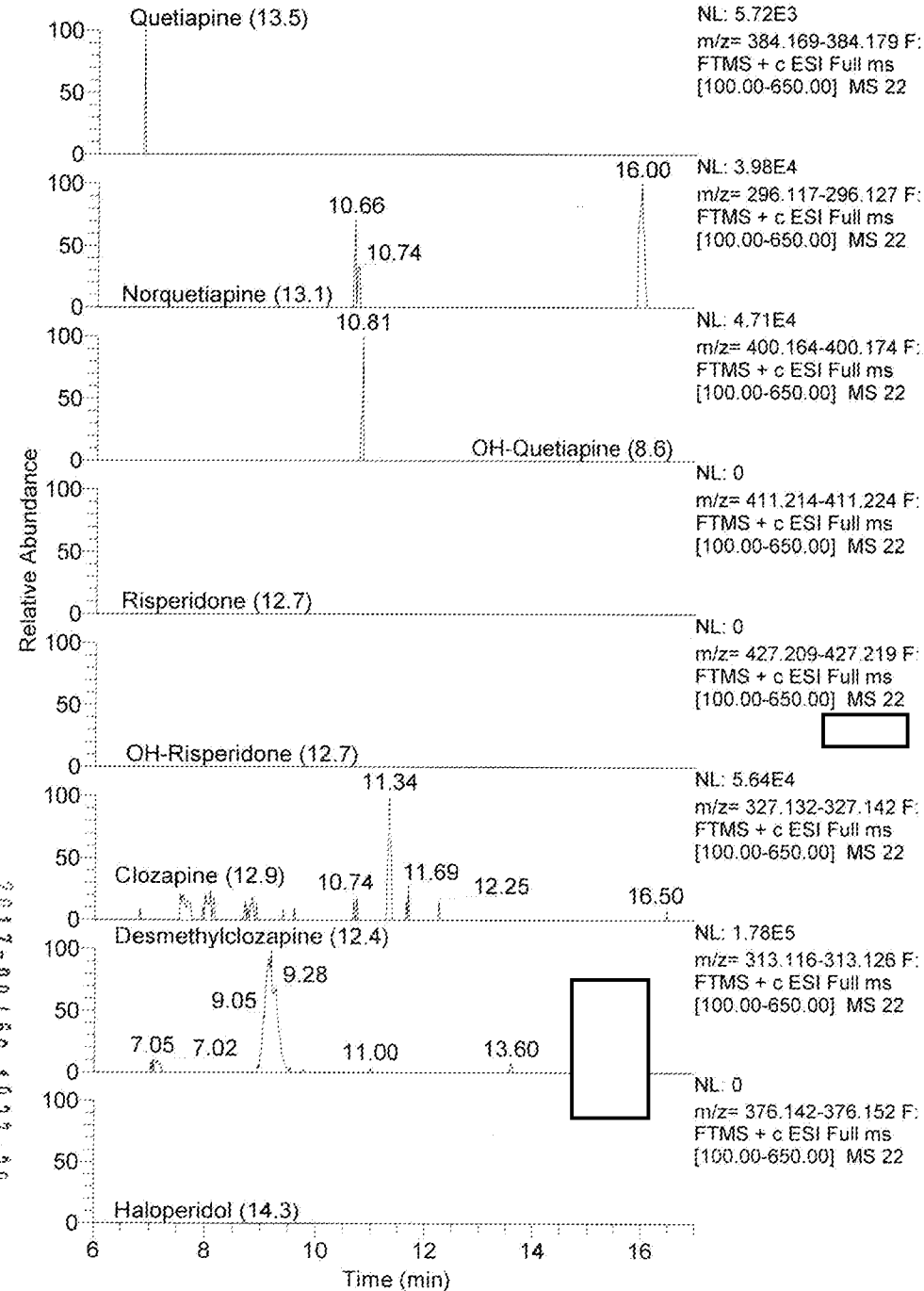
b7E -2

## Alkaline Drug Screen

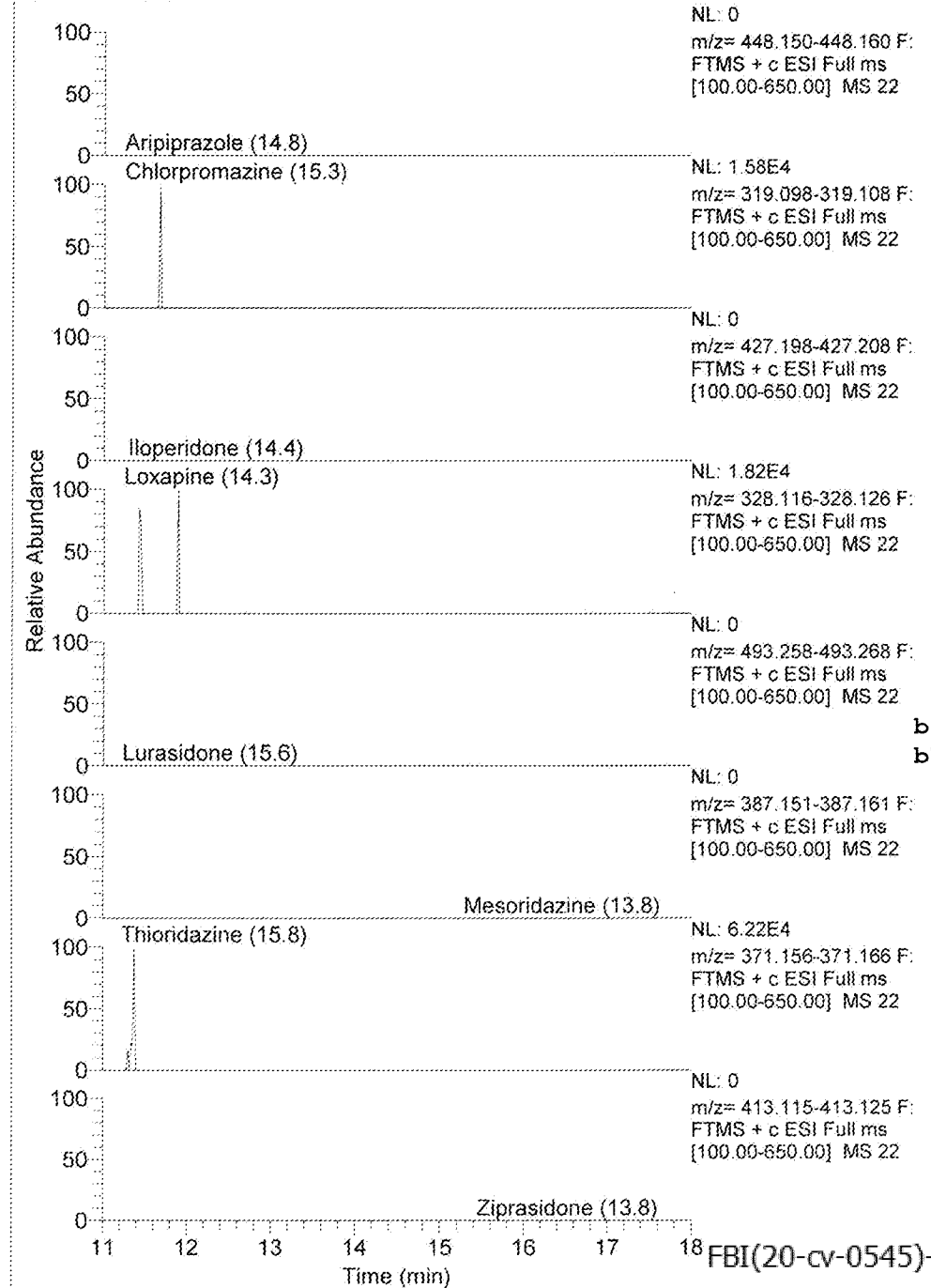
RT: 6.00 - 17.00

## LC-ESI-FTMS Data

## ANTIPSYCHOTICS



RT: 11.00 - 18.00



b6 -1

b7C -1

FBI(20-cv-0545)-1445

10/4/2017 2:11:54 AM

2017-00469, 2. urine

b6 -1

b7C -1

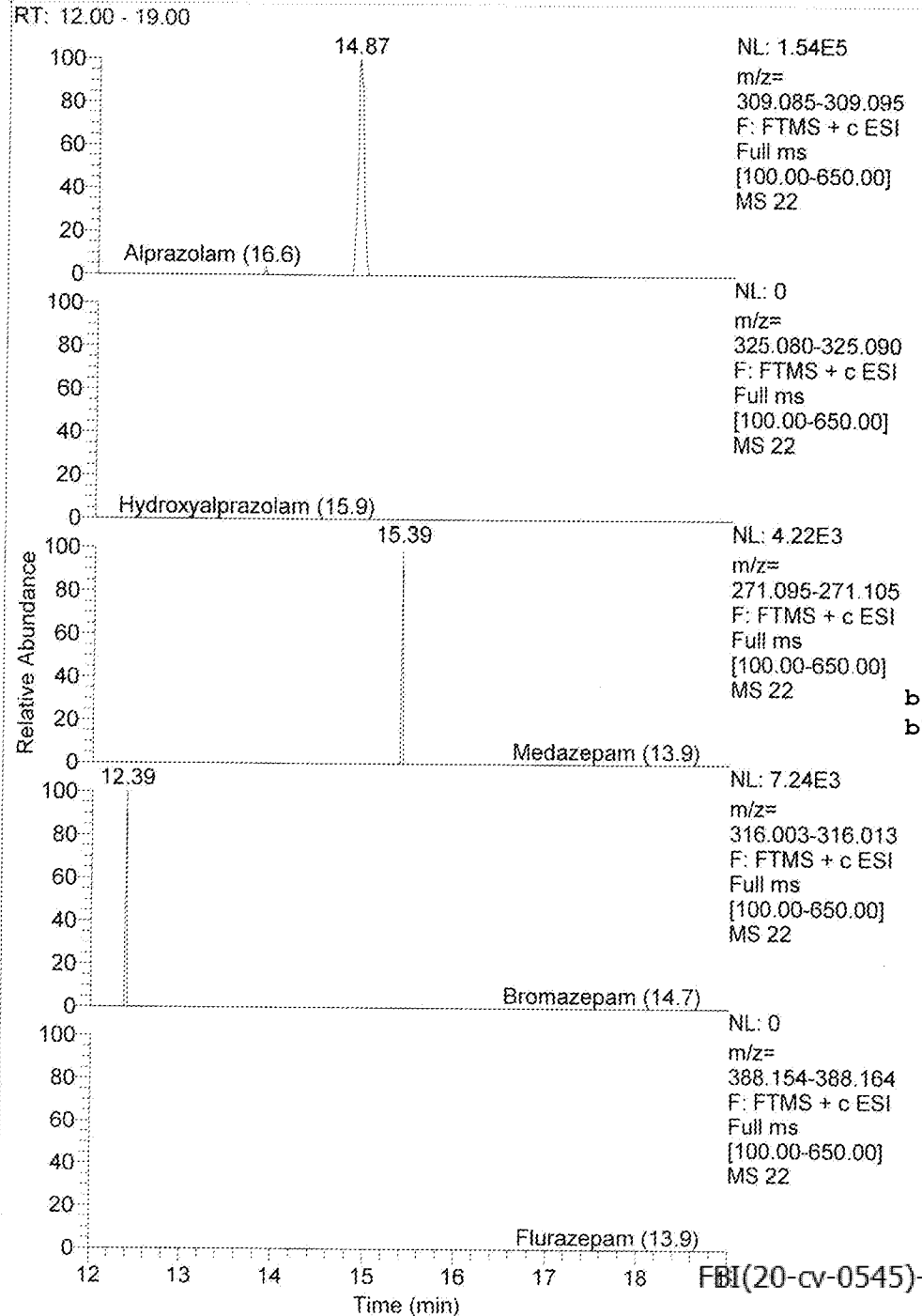
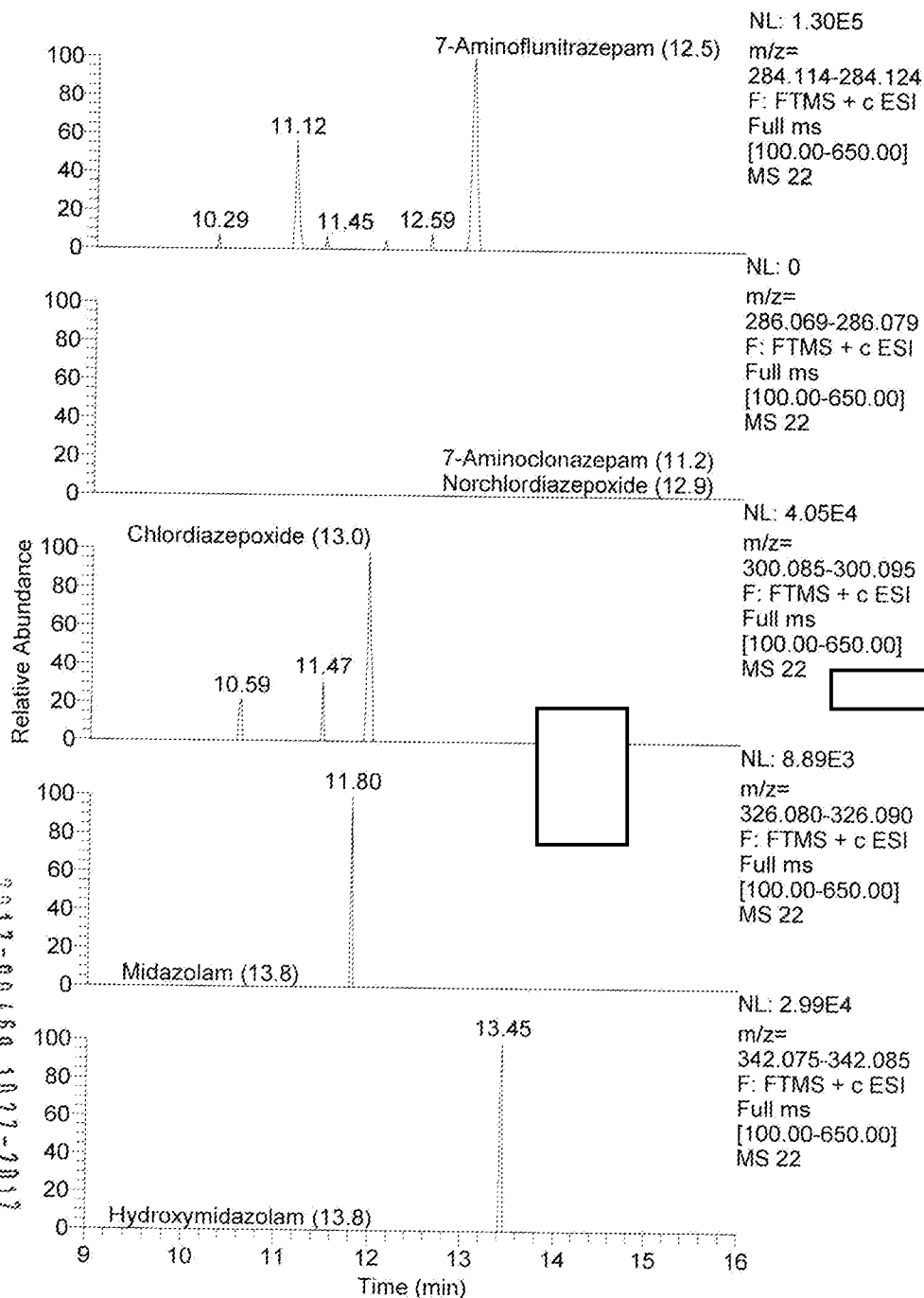
b7E -2

## Alkaline Drug Screen

RT: 9.00 - 16.00

## LC-ESI-FTMS Data

## BENZODIAZEPINES 1



b6 -1

b7C -1

FBI(20-cv-0545)-1446



10/4/2017 2:11:54 AM

2017-00469, 2, urine

b6 -1

b7C -1

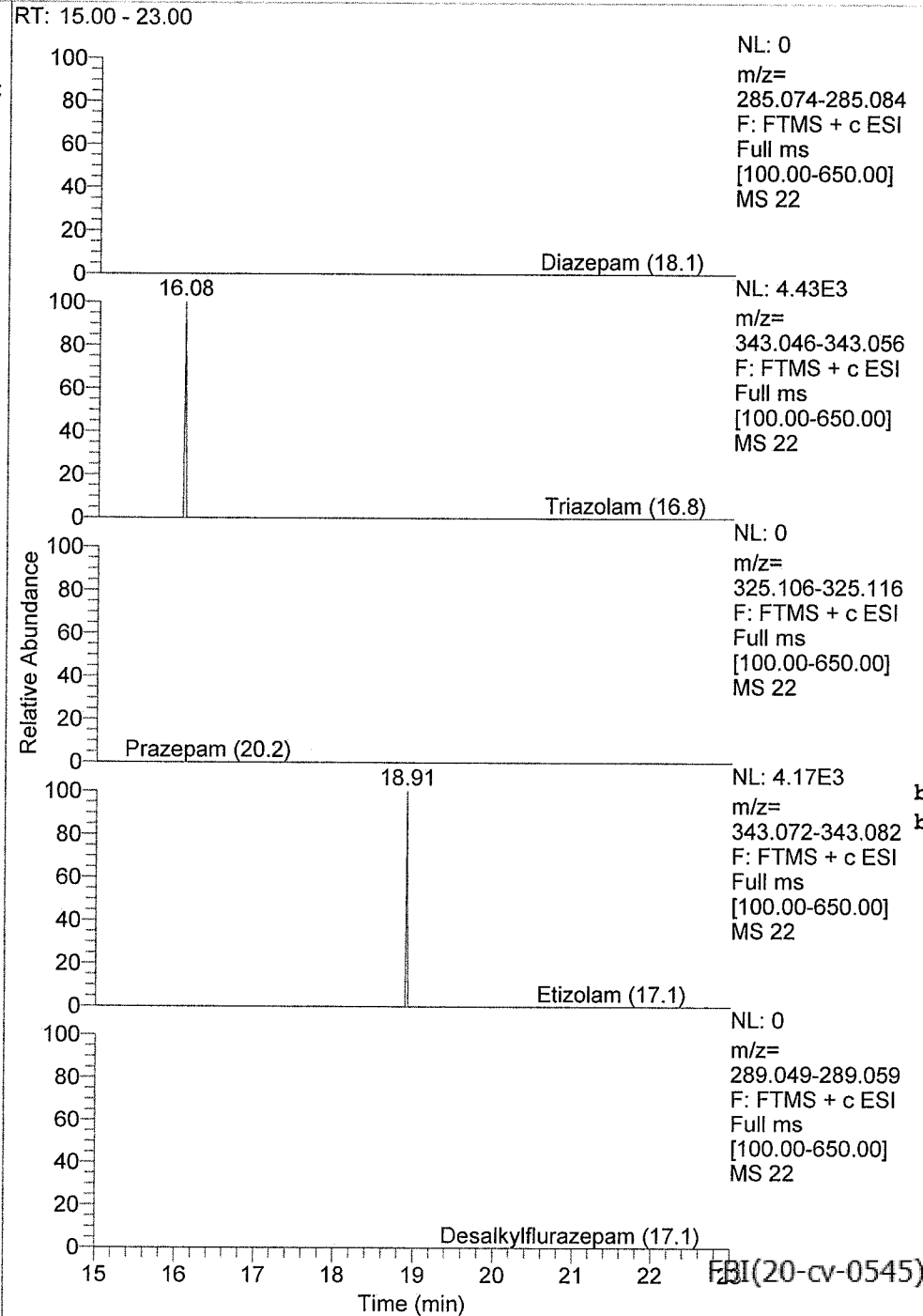
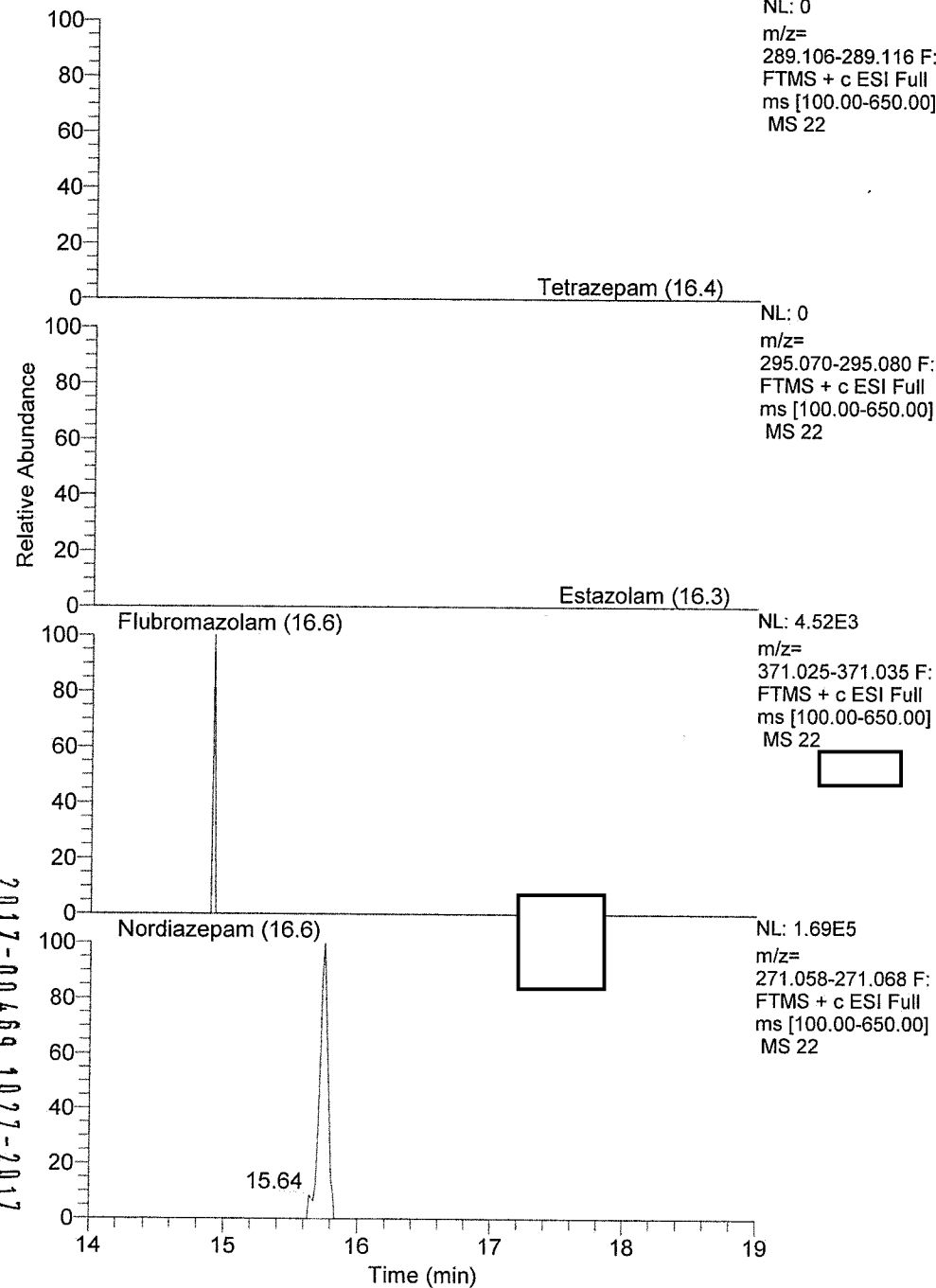
b7E -2

# Alkaline Drug Screen

RT: 14.00 - 19.00

## LC-ESI-FTMS Data

## BENZODIAZEPINES 2



b6 -1

b7C -1

10/4/2017 2:11:54 AM

2017-00469, 2, urine

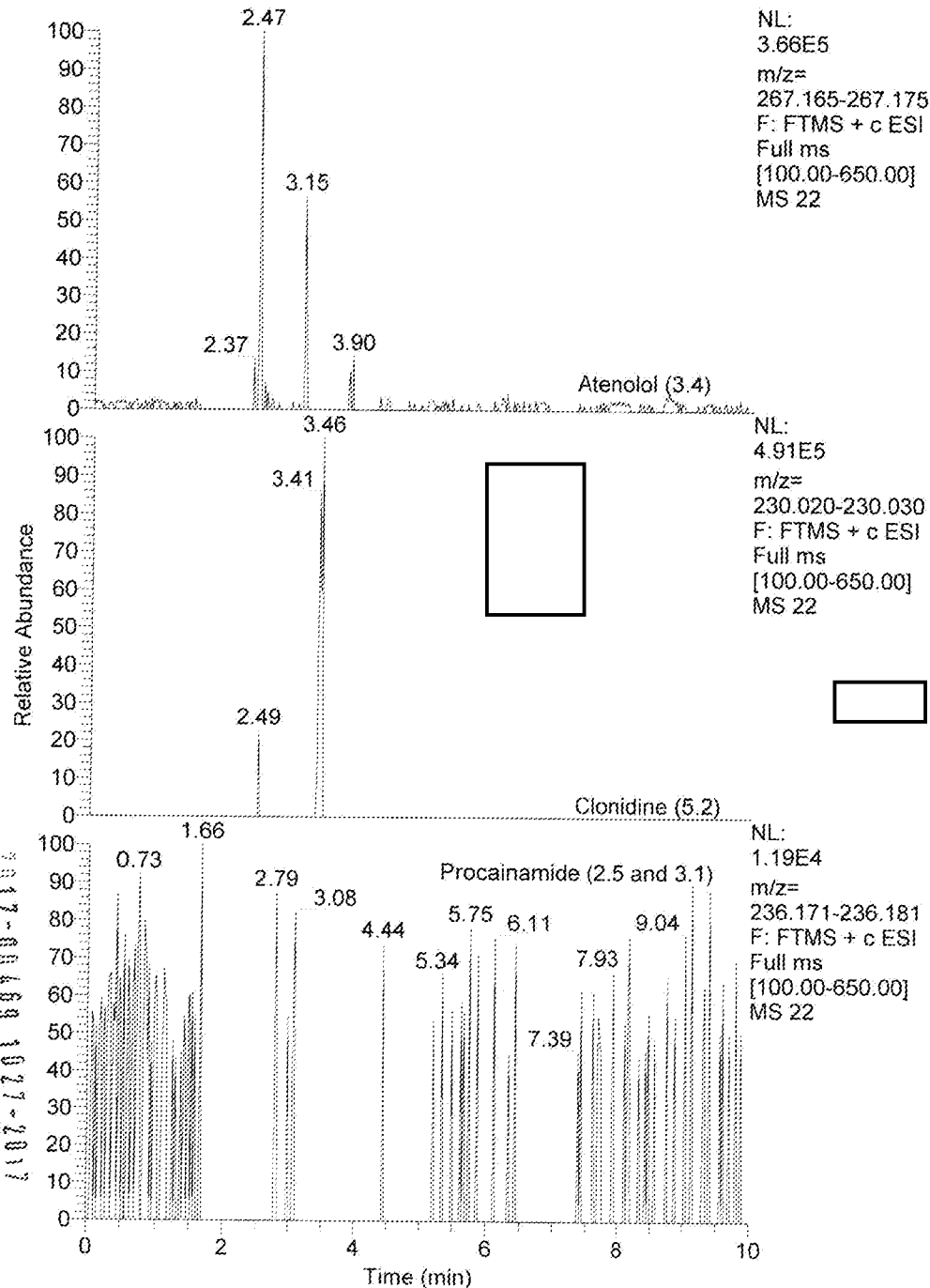
b6 -1

b7C -1

b7E -2

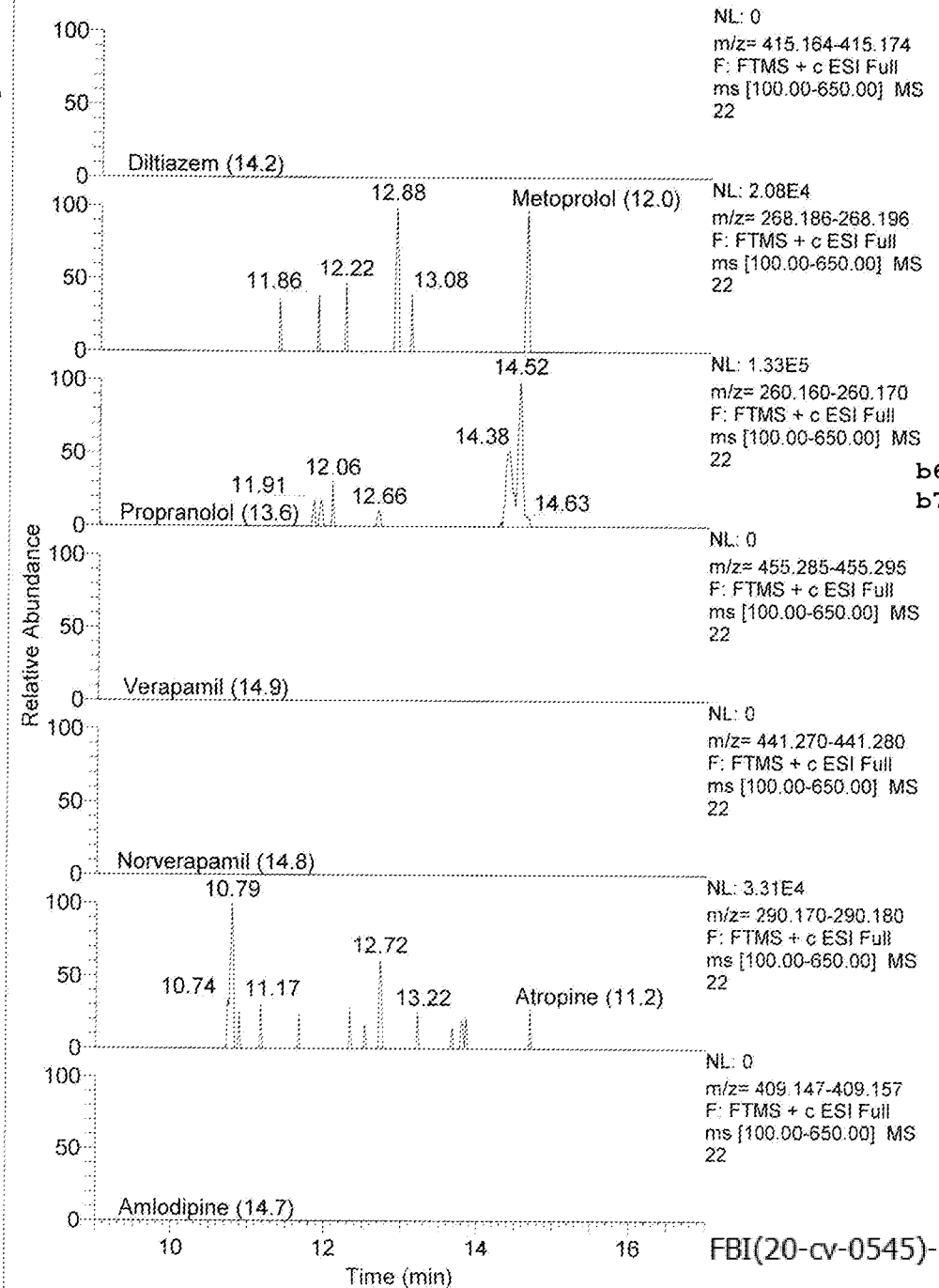
## Alkaline Drug Screen

RT: 0.00 - 10.00



## LC-ESI-FTMS Data

RT: 9.00 - 17.00



b6 -1

b7C -1

FBI(20-cv-0545)-1448



10/4/2017 2:11:54 AM

2017-00469, 2, urine

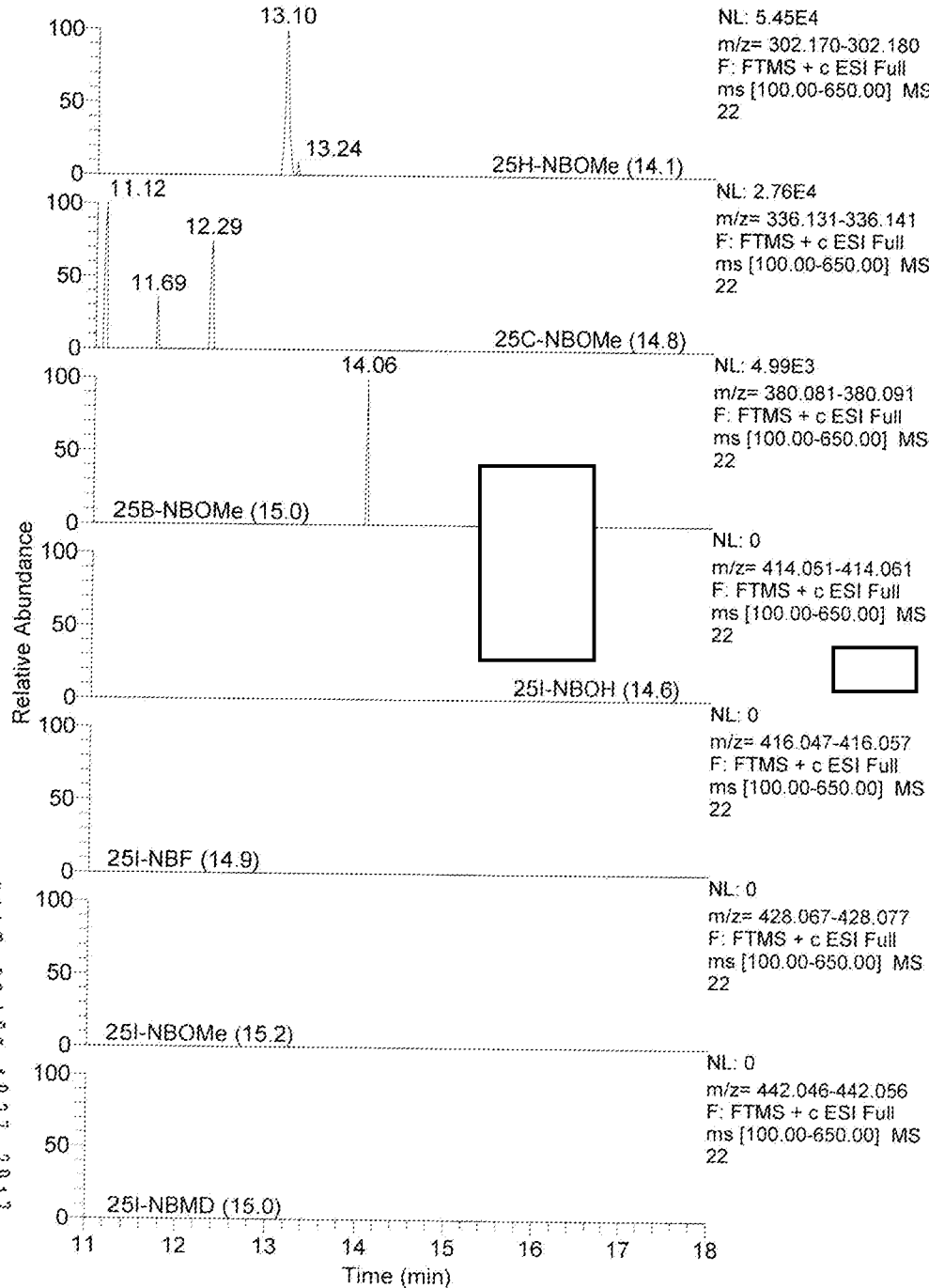
b6 -1

b7C -1

b7E -2

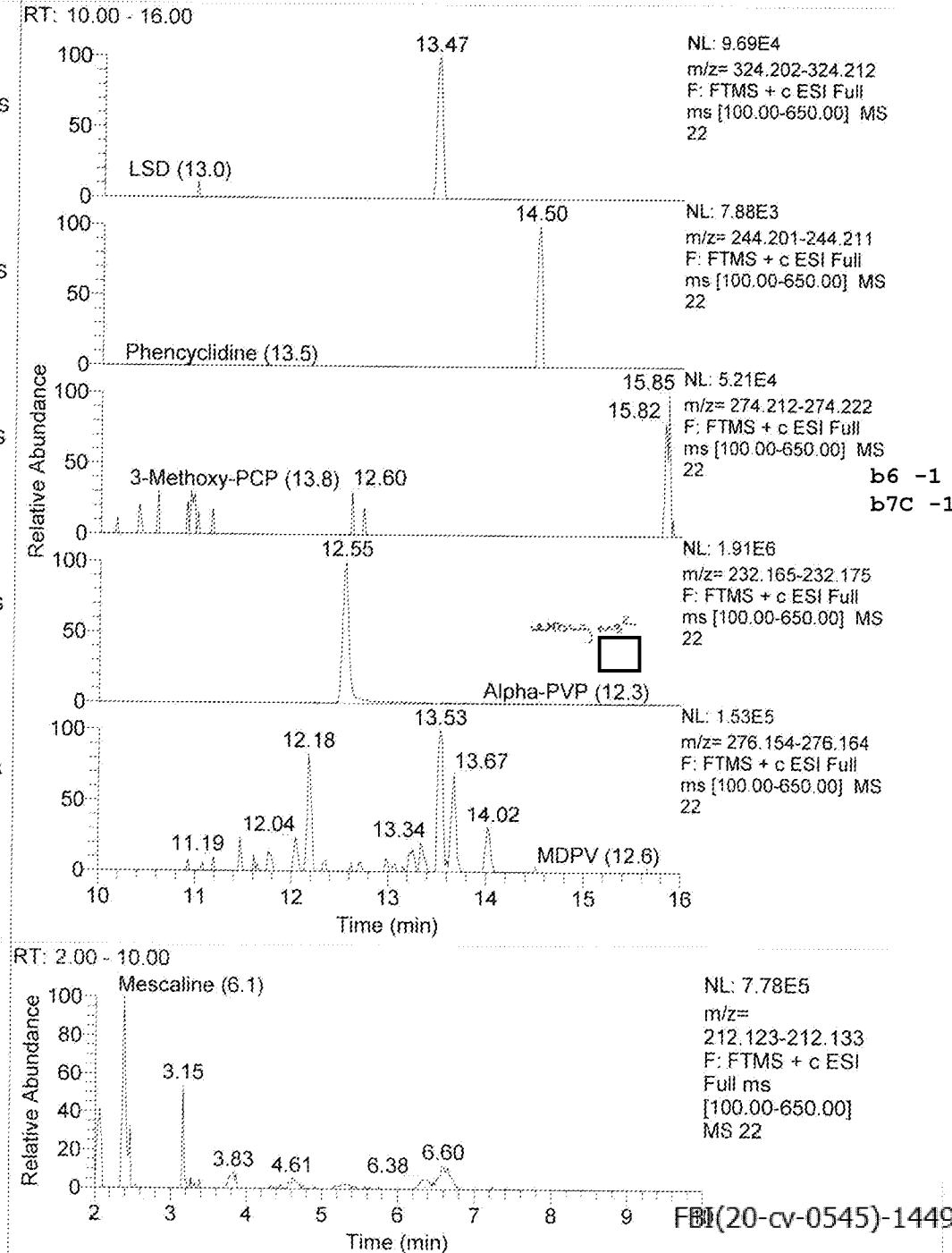
## Alkaline Drug Screen

RT: 11.00 - 18.00



## LC-ESI-FTMS Data

## HALLUCINOGENS



FBI(20-cv-0545)-1449

[Redacted]

10/4/2017 2:11:54 AM

2017-00469, 2, urine

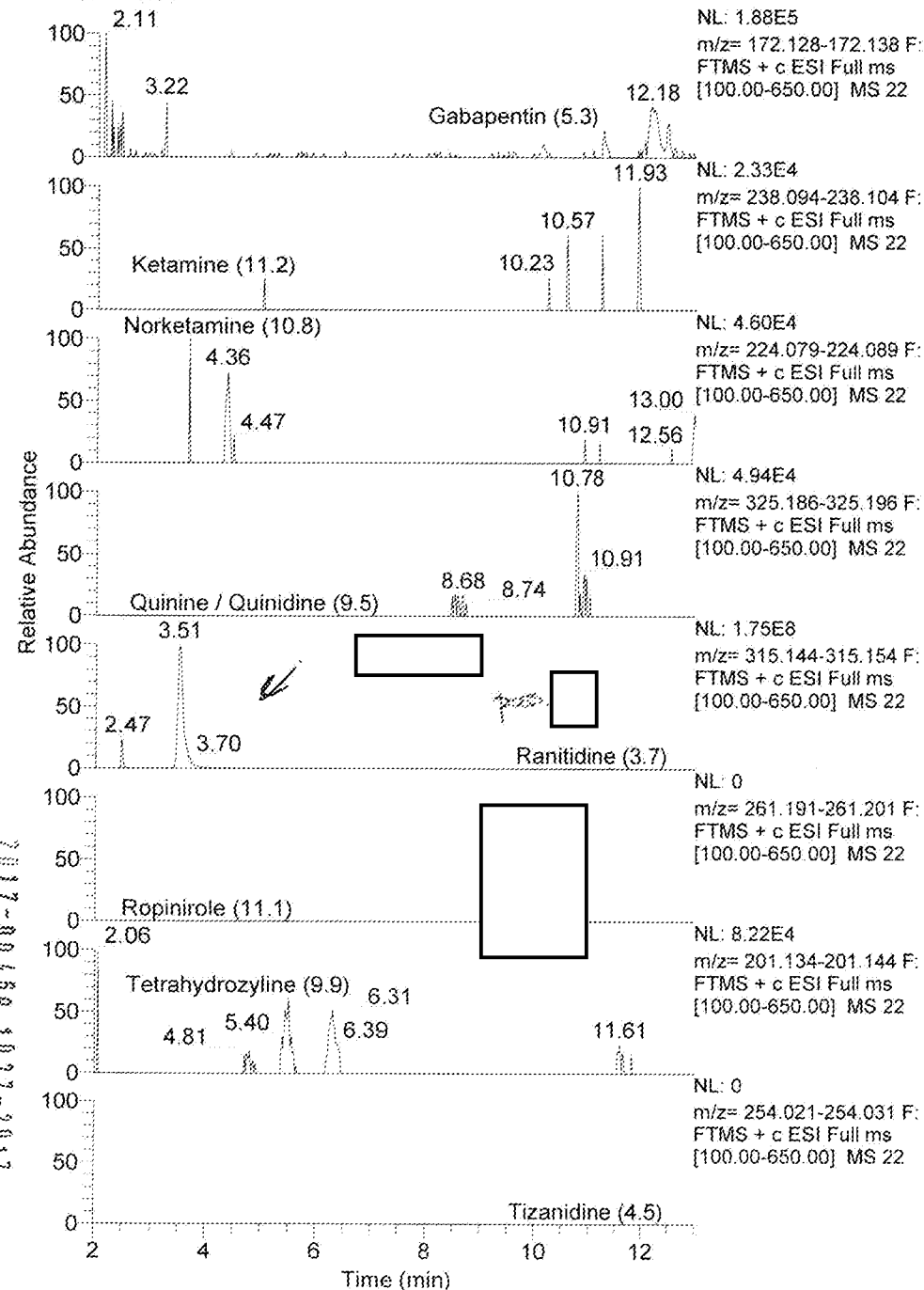
b6 -1

b7C -1

b7E -2

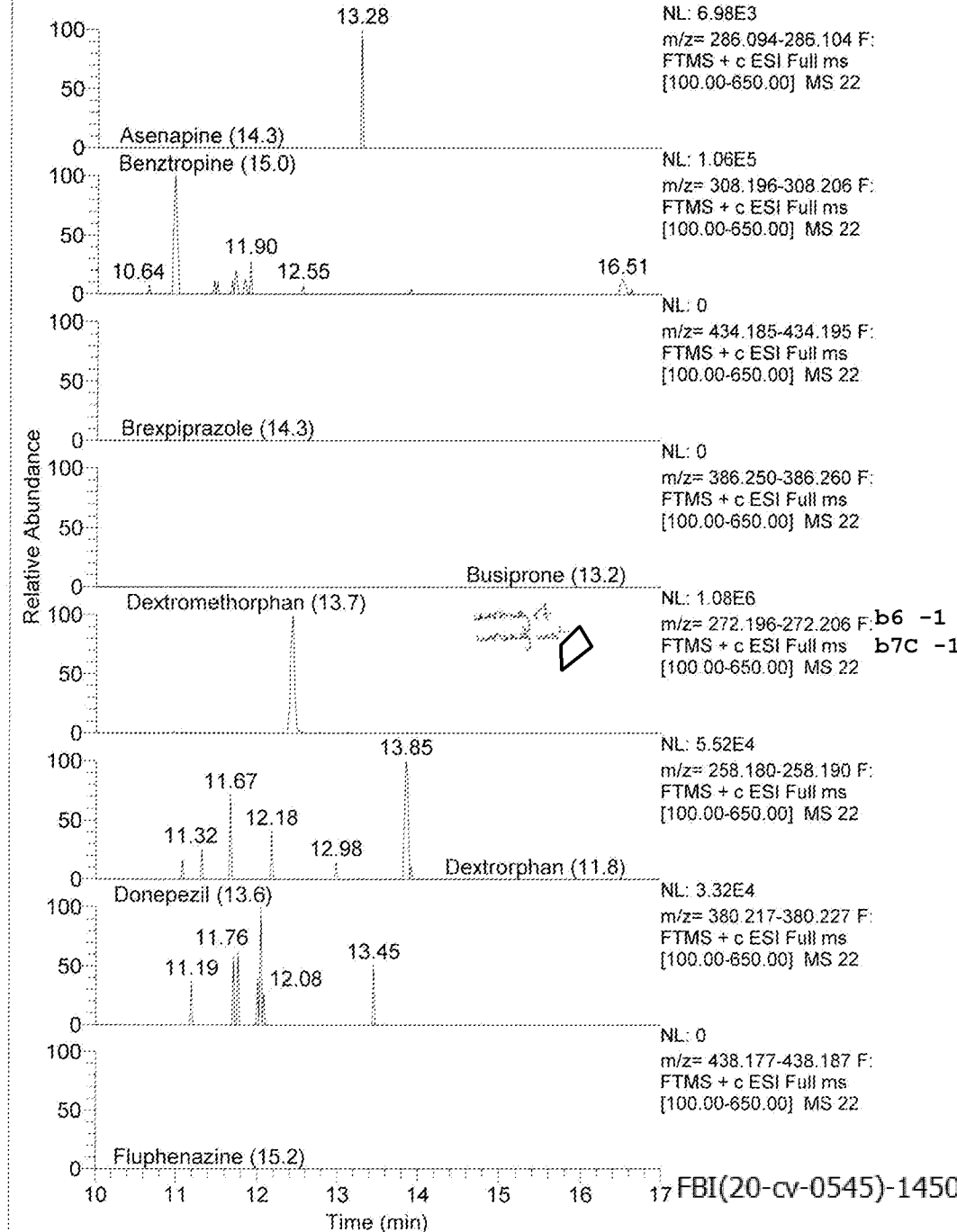
# Alkaline Drug Screen

RT: 2.00 - 13.00



## LC-ESI-FTMS Data

RT: 10.00 - 17.00



2017-00469-1027-2017

FBI(20-cv-0545)-1450

10/4/2017 2:11:54 AM

2017-00469, 2, urine

b6 -1

b7C -1

b7E -2

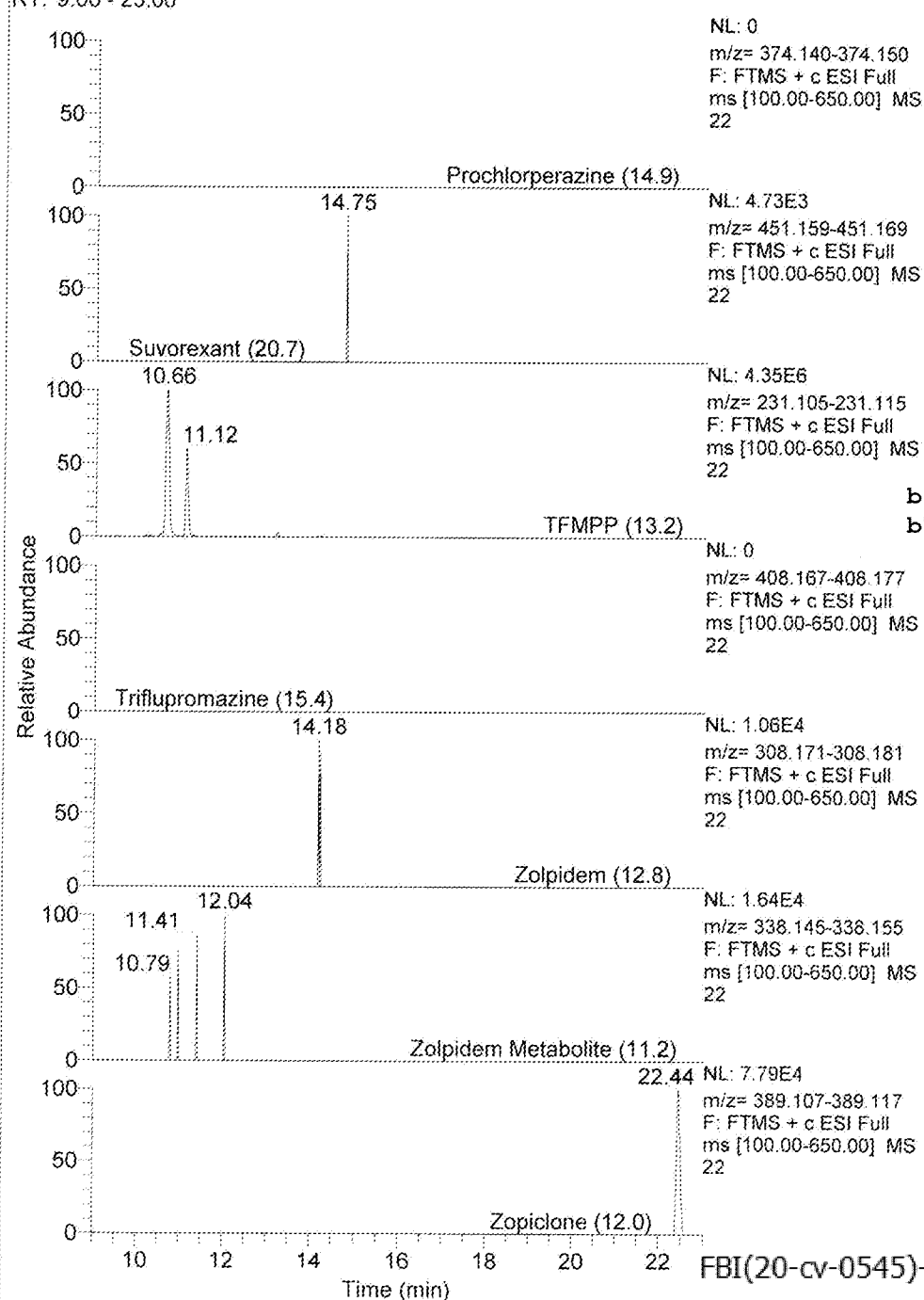
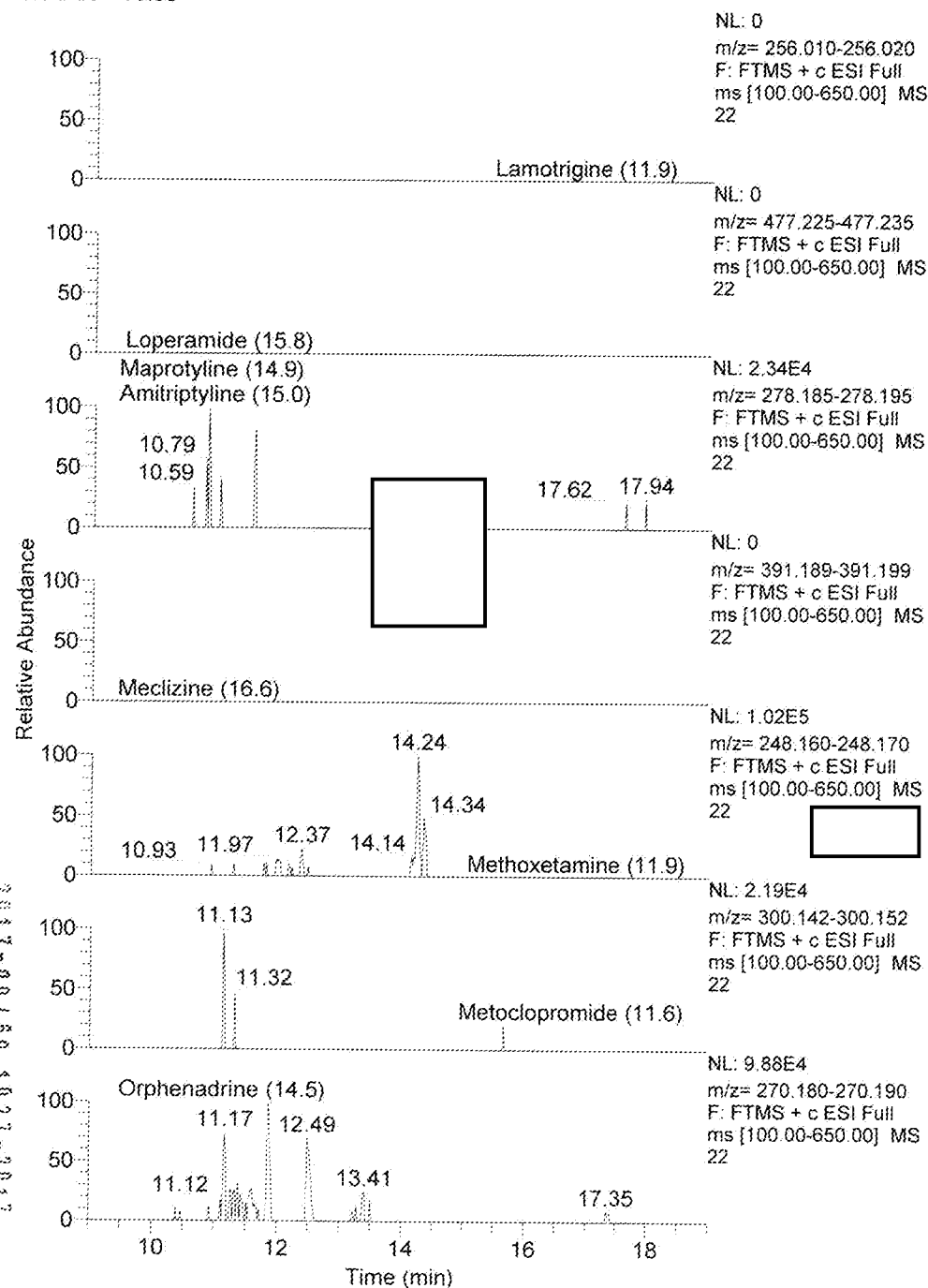
## Alkaline Drug Screen

RT: 9.00 - 19.00

## LC-ESI-FTMS Data

## MISCELLANEOUS 2

RT: 9.00 - 23.00



b6 -1

b7C -1

FBI(20-cv-0545)-1451

RT: 0.00 - 12.00

2017-00469. 2. urine

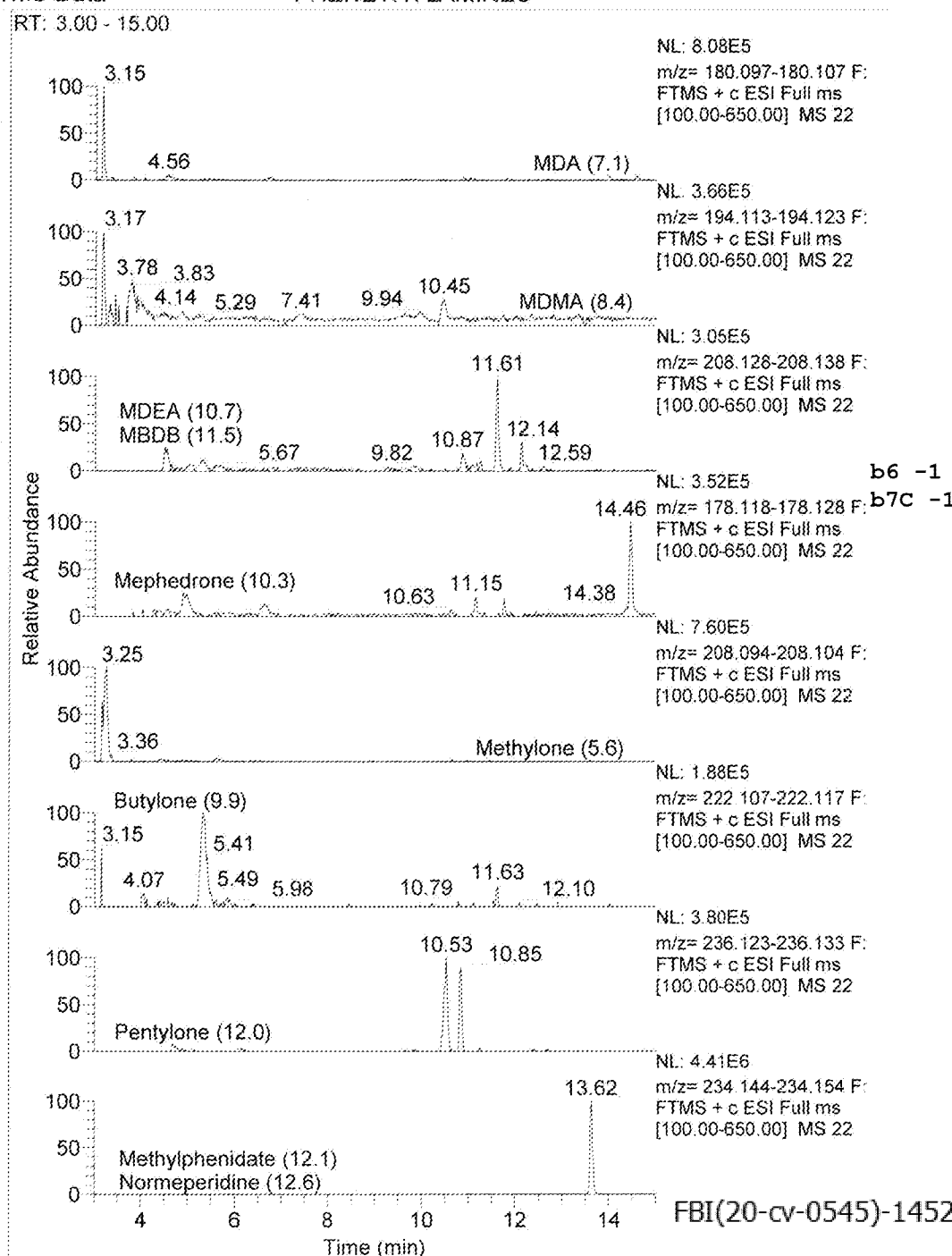
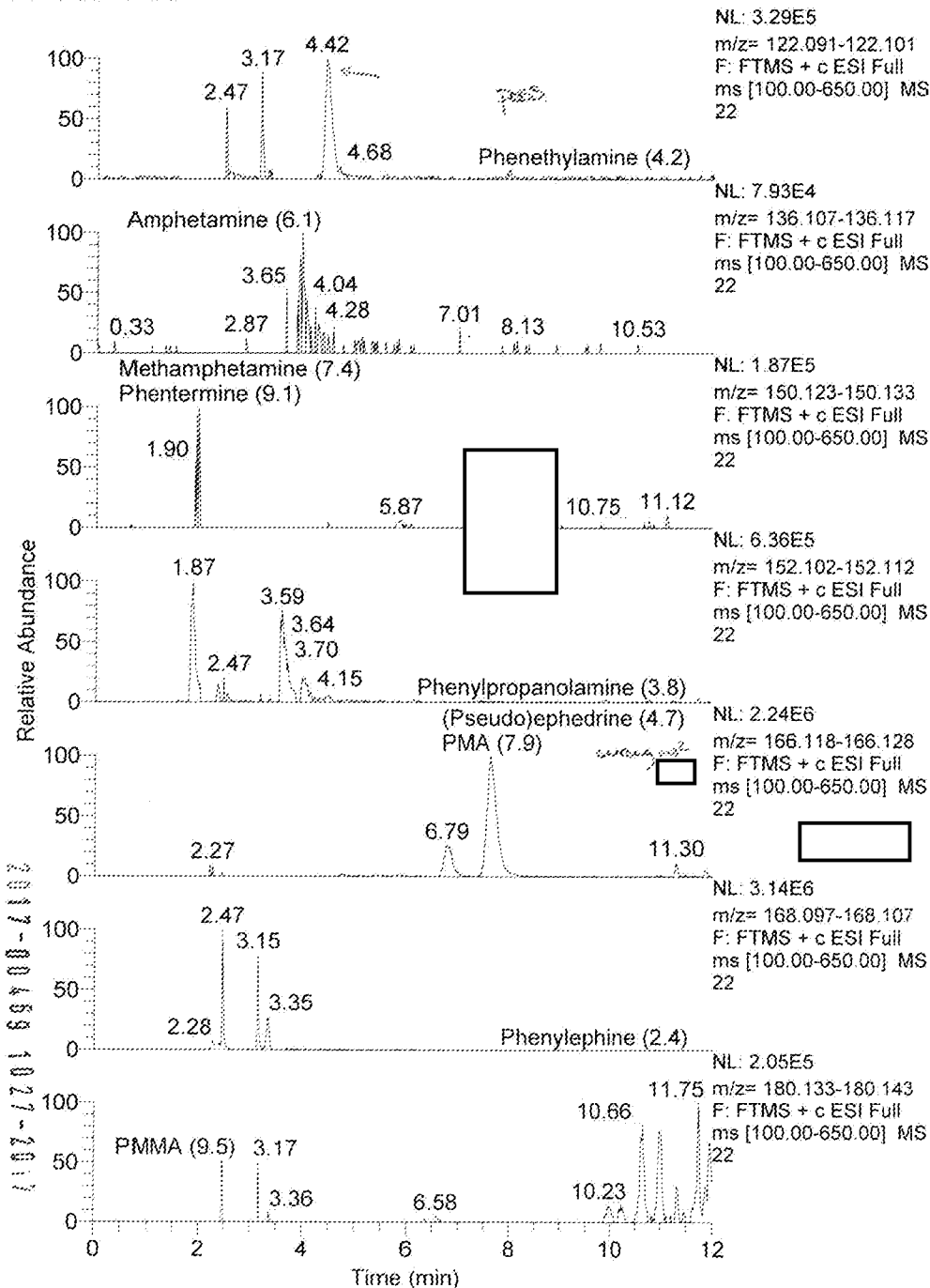
b6 -1

b7C -1

b7E -2

LC-ESI-FTMS Data

## PHENETHYLAMINES



10/4/2017 2:11:54 AM

2017-00469, 2, urine

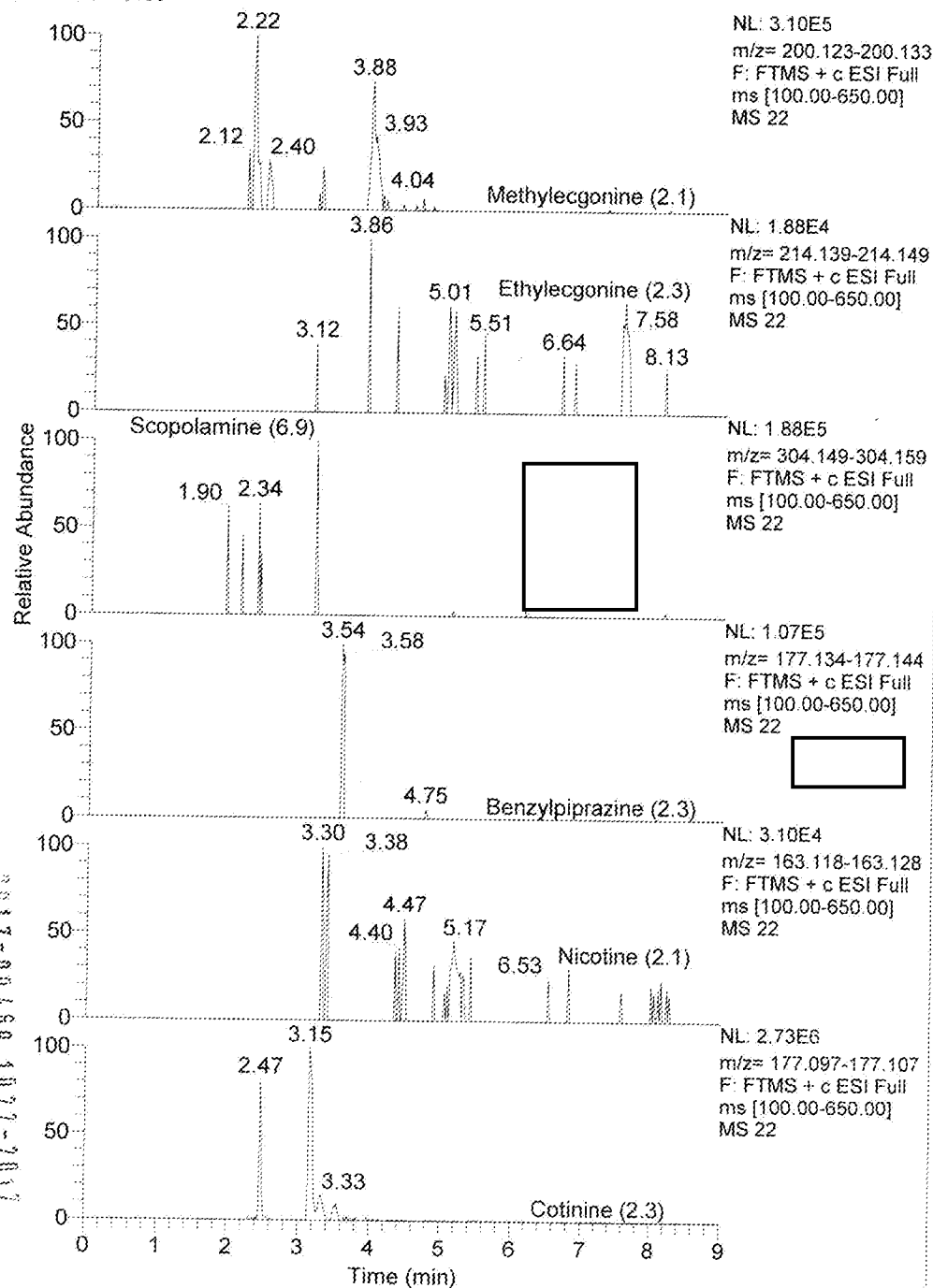
b6 -1

b7C -1

b7E -2

## Alkaline Drug Screen

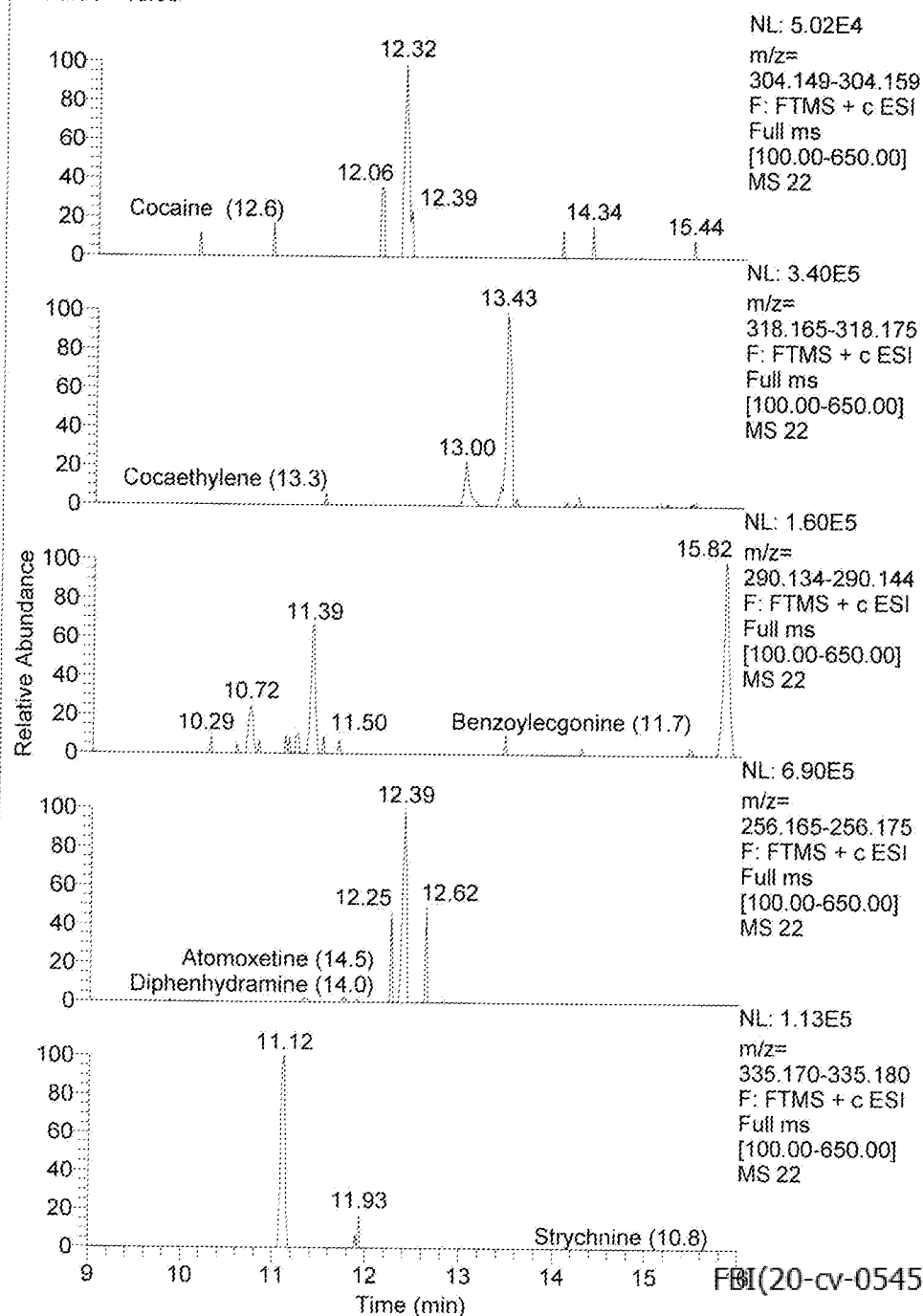
RT: 0.00 - 9.00



## LC-ESI-FTMS Data

RT: 9.00 - 16.00

## STIMULANTS



b6 -1

b7C -1

FBI(20-cv-0545)-1453

10/4/2017 2:11:54 AM

2017-00469, 2, urine

b6 -1

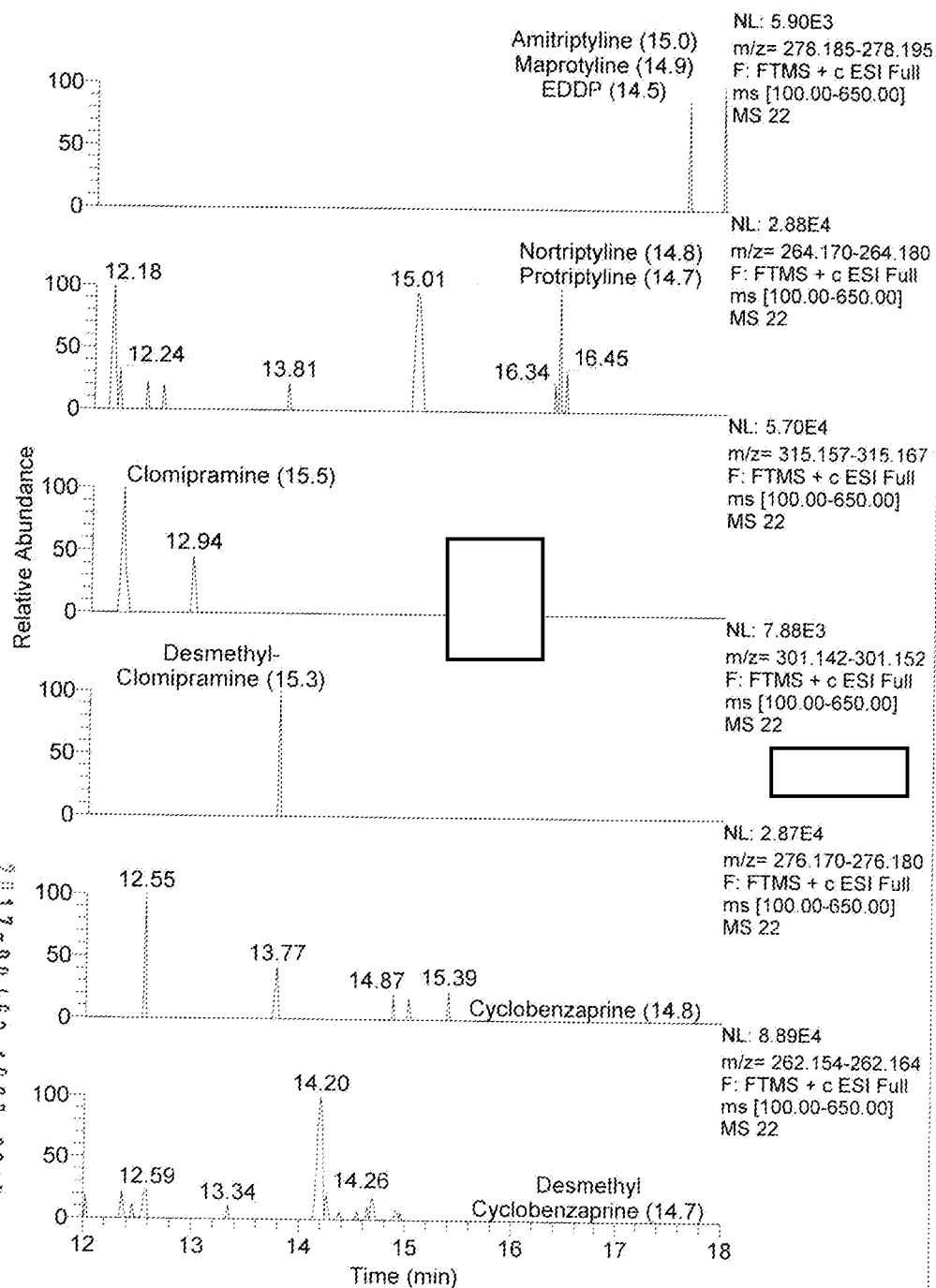
b7C -1

b7E -2

## Alkaline Drug Screen

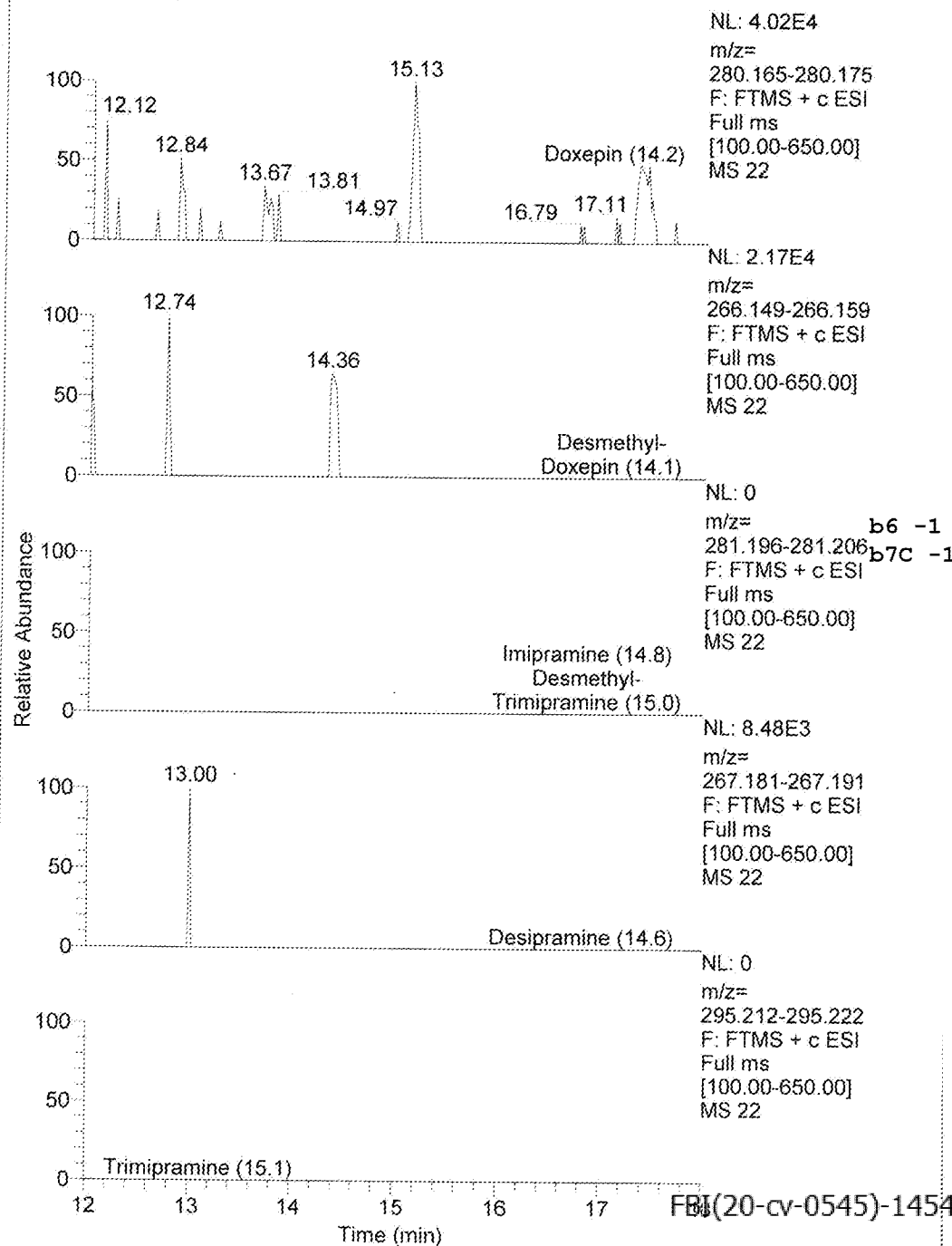
RT: 12.00 - 18.00

## LC-ESI-FTMS Data



## TRICYCLICS

RT: 12.00 - 18.00



2017-00469-1027-2017

FBI(20-cv-0545)-1454

10/4/2017 12:56:28 AM

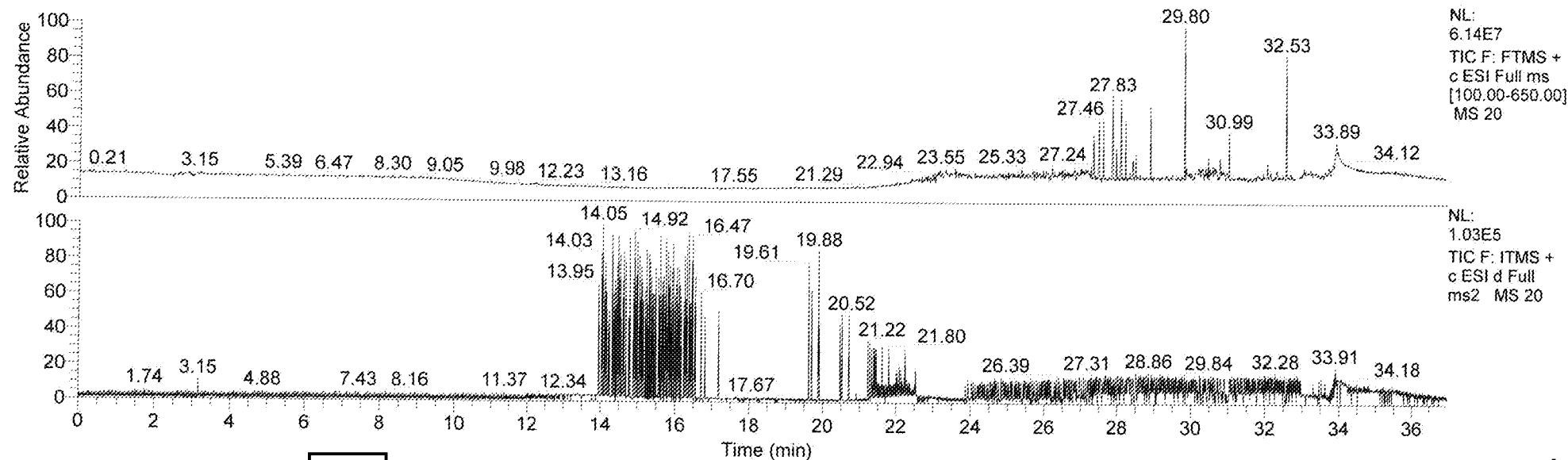
sb

b6 -1

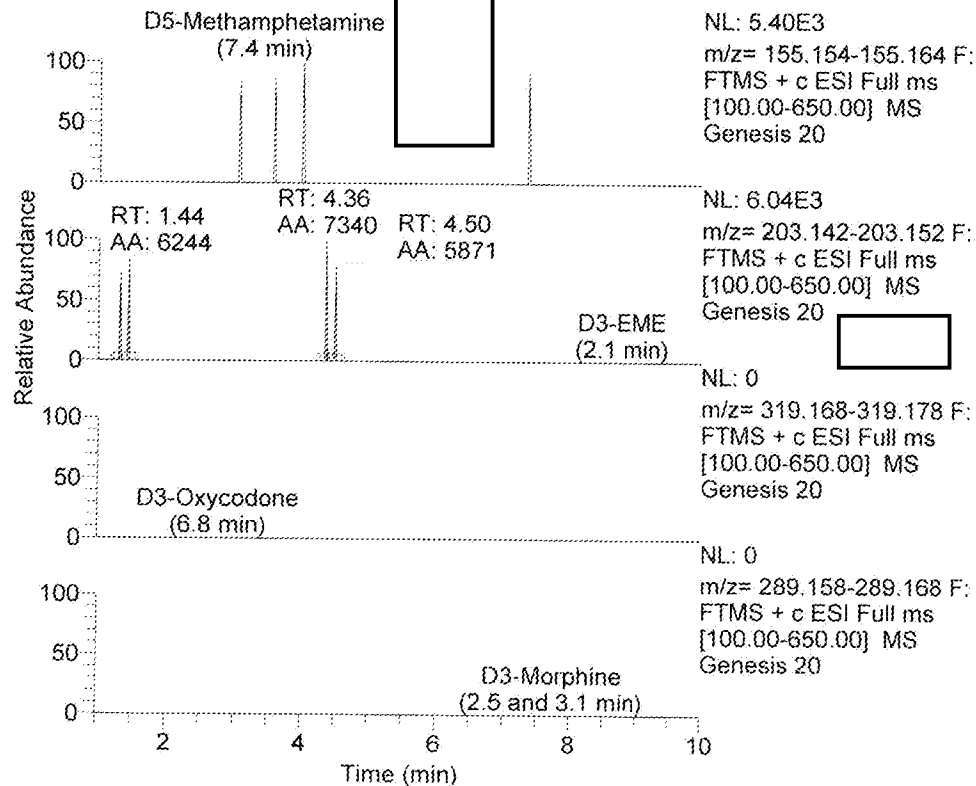
b7C -1

b7E -2

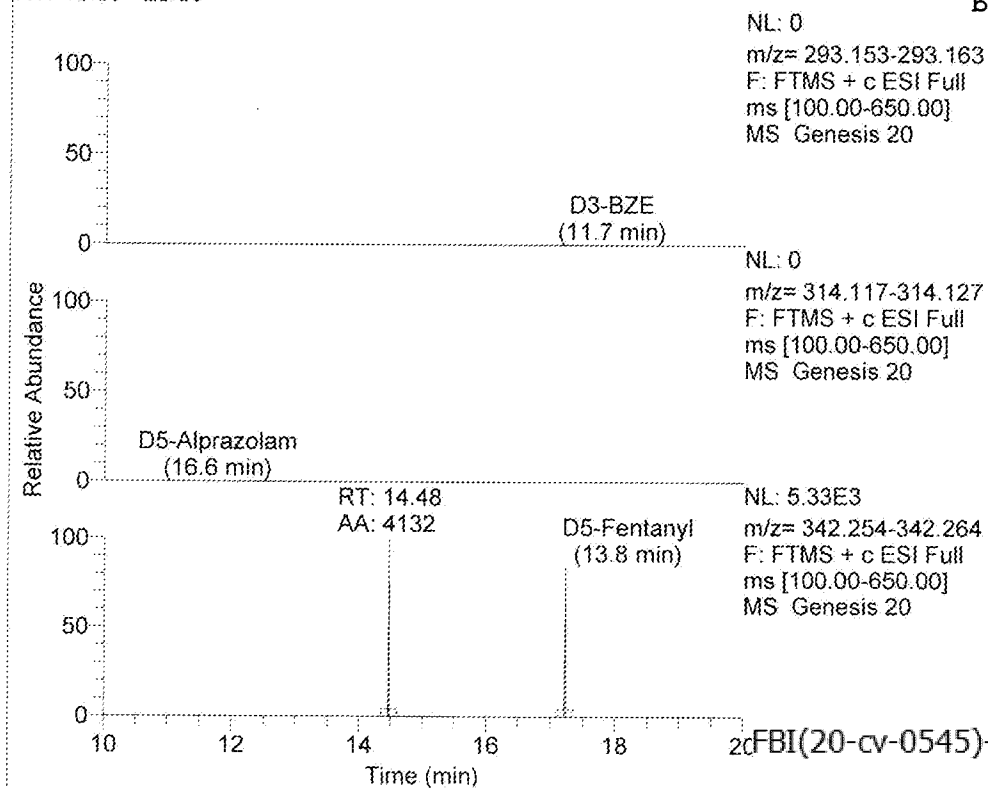
RT: 0.00 - 37.00



RT: 1.00 - 10.00



RT: 10.00 - 20.00



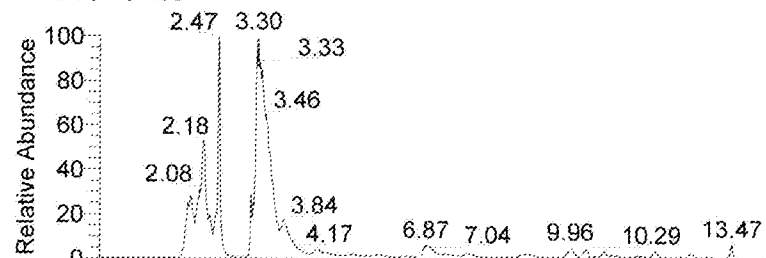
b6 -1

b7C -1

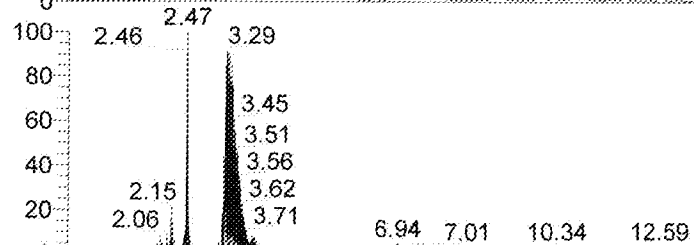
2017-06-16 10:27-2017

FBI(20-cv-0545)-1455

RT: 0.00 - 37.00



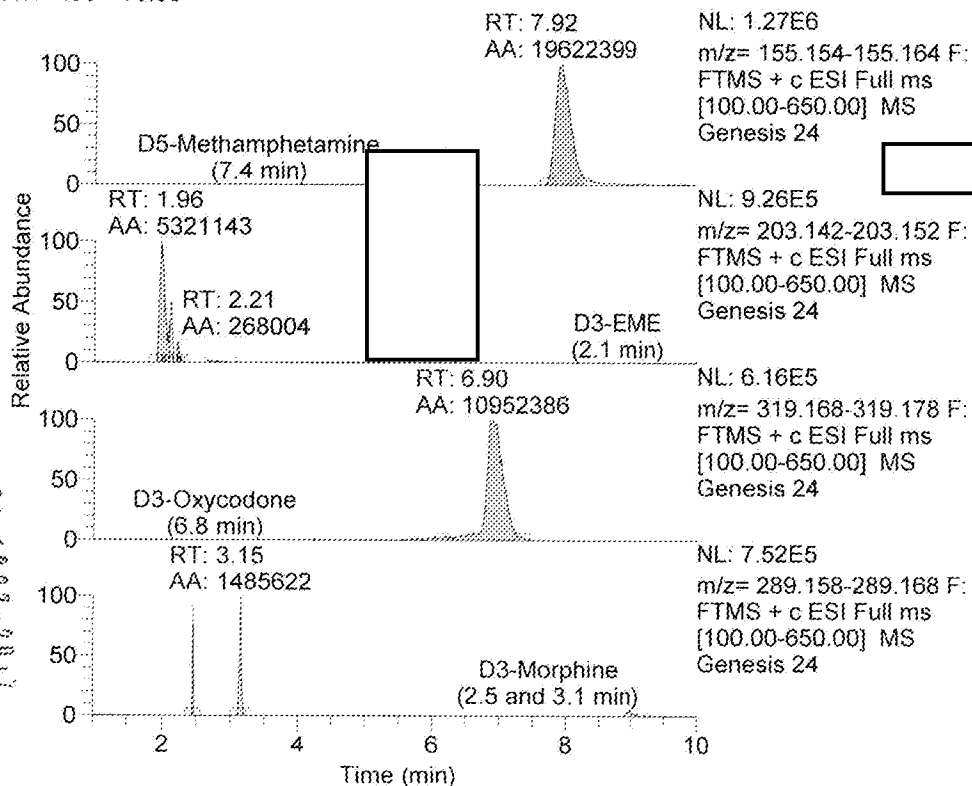
NL: 1.88E9  
TIC F: FTMS +  
c ESI Full ms  
[100.00-650.00]  
MS 24



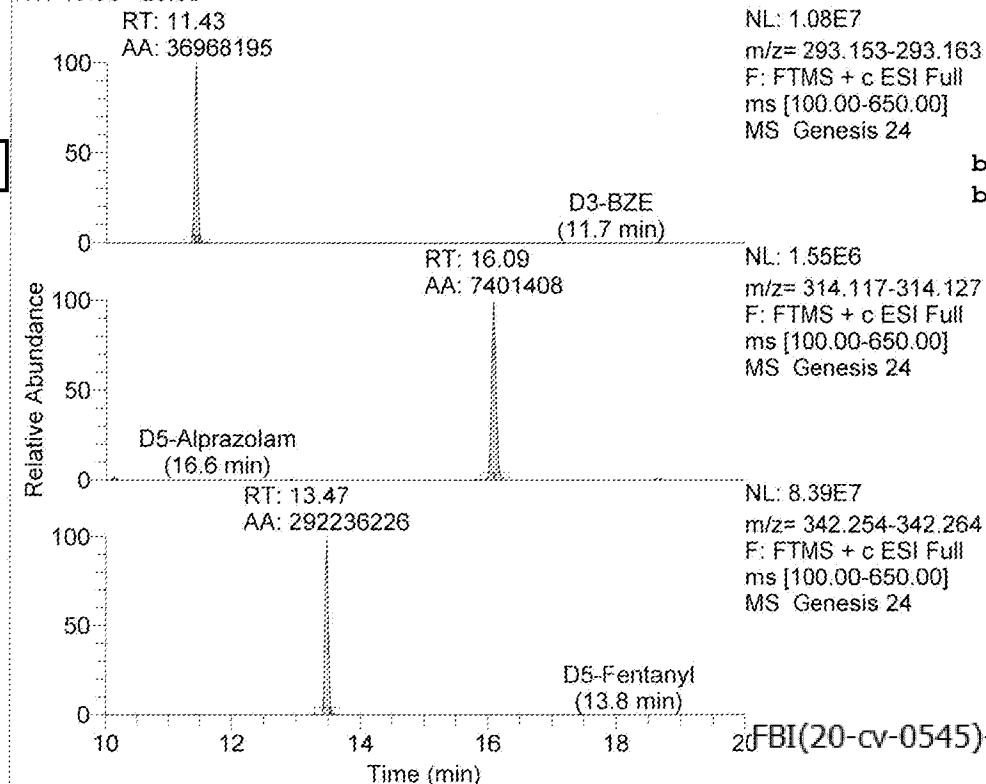
NL: 6.47E7  
TIC F: ITMS +  
c ESI d Full  
ms2 MS 24

Time (min)

RT: 1.00 - 10.00



RT: 10.00 - 20.00





[Redacted]

10/4/2017 3:27:20 AM

2017-00469, 5, urine

b6 -1

b7C -1

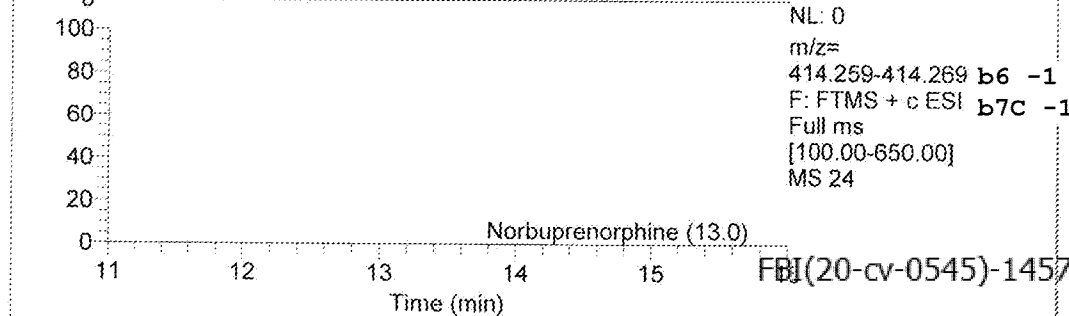
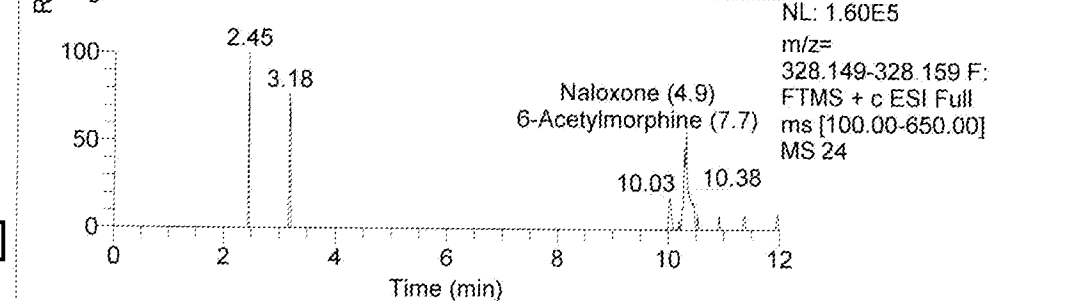
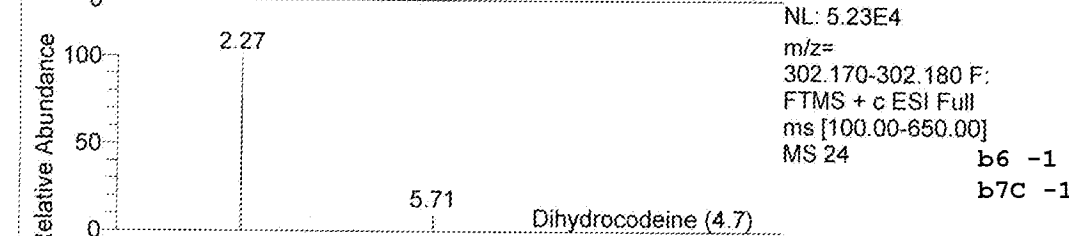
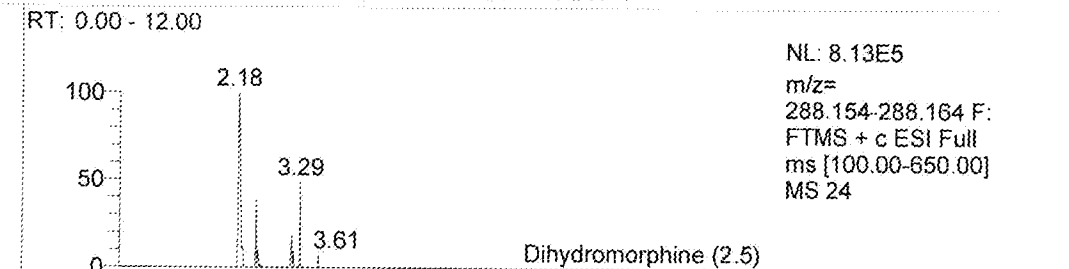
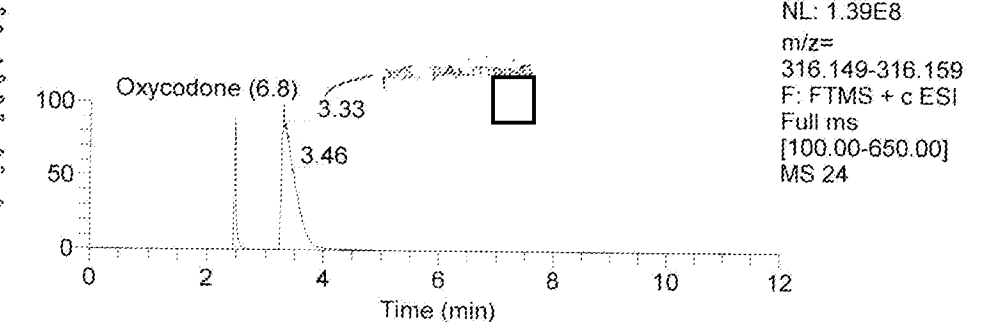
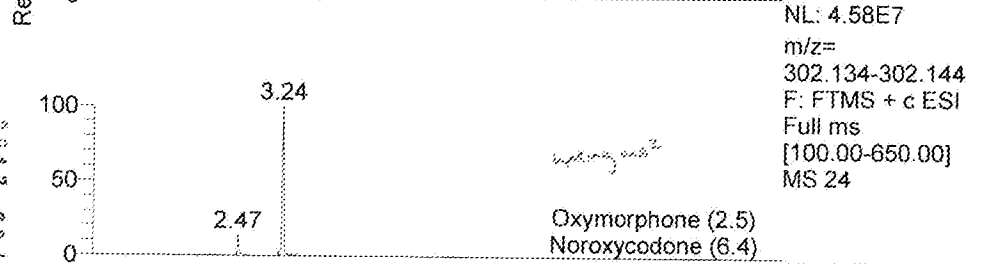
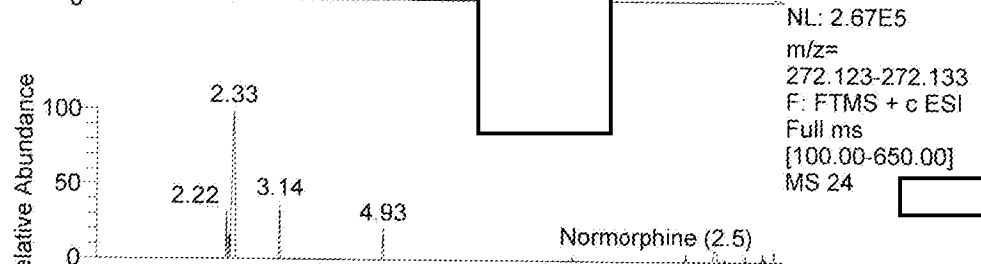
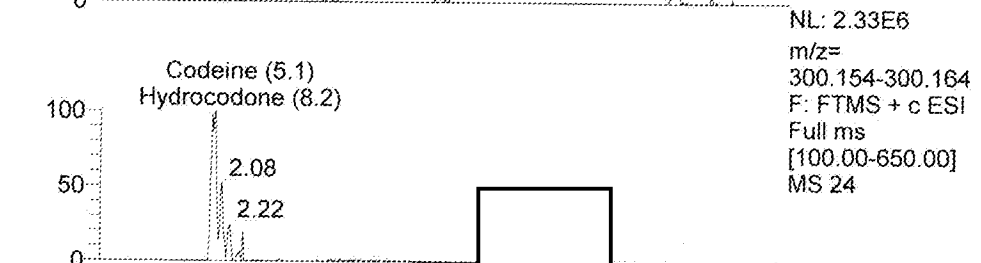
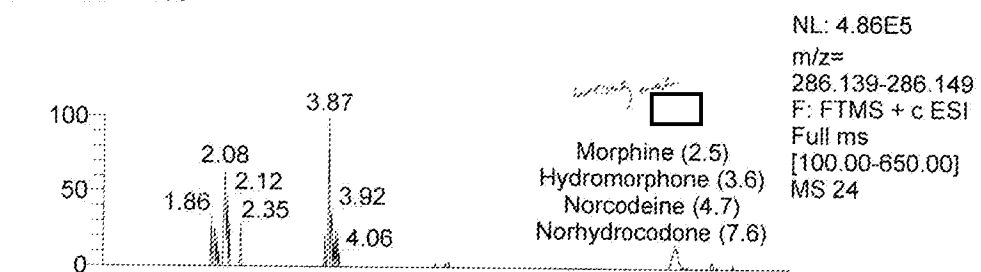
b7E -2

Alkaline Drug Screen

RT: 0.00 - 12.00

LC-ESI-FTMS Data

ANALGESICS - PART 1



FBI(20-cv-0545)-1457

10/4/2017 3:27:20 AM

2017-00469, 5, urine

b6 -1

b7C -1

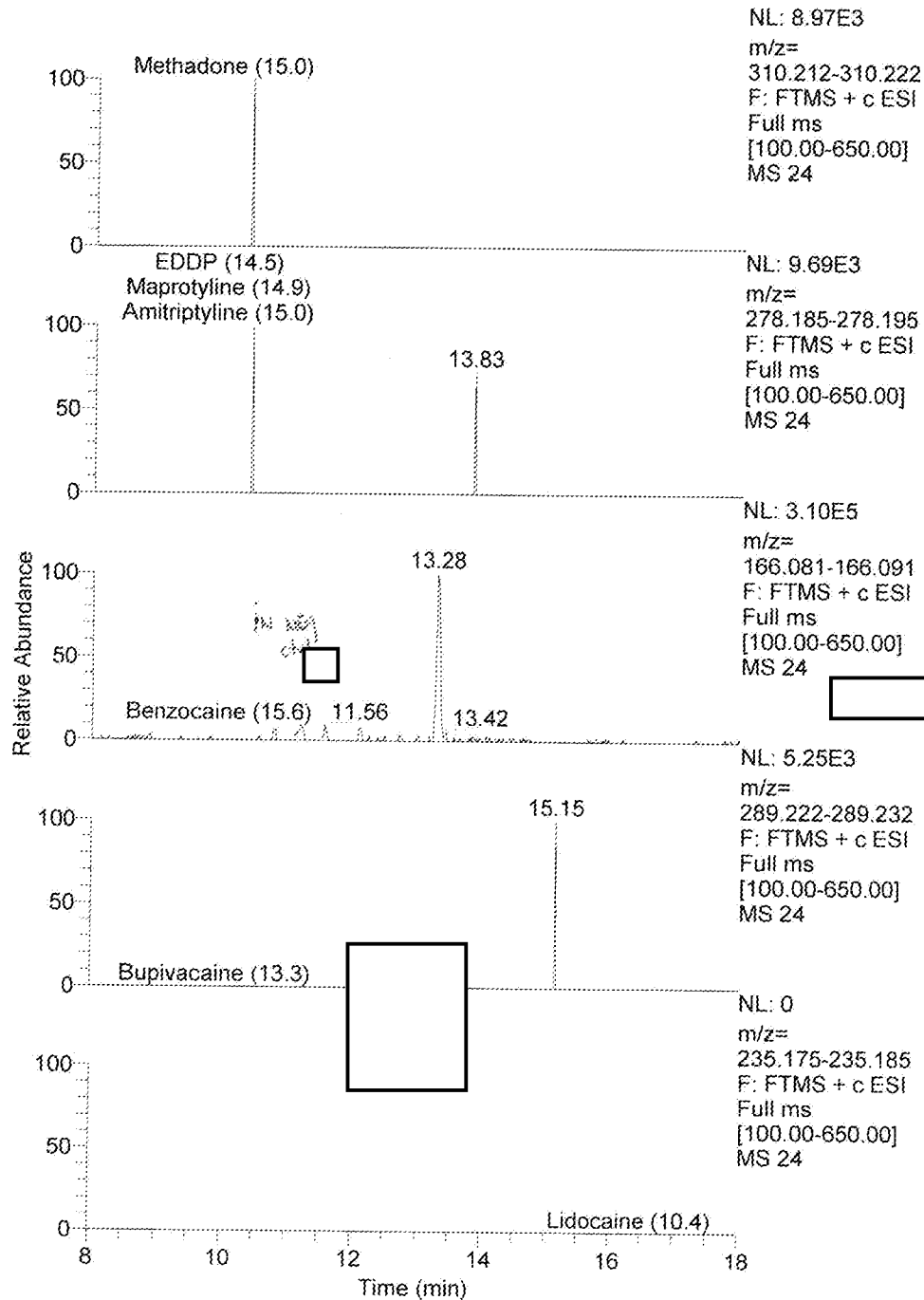
b7E -2

## Alkaline Drug Screen

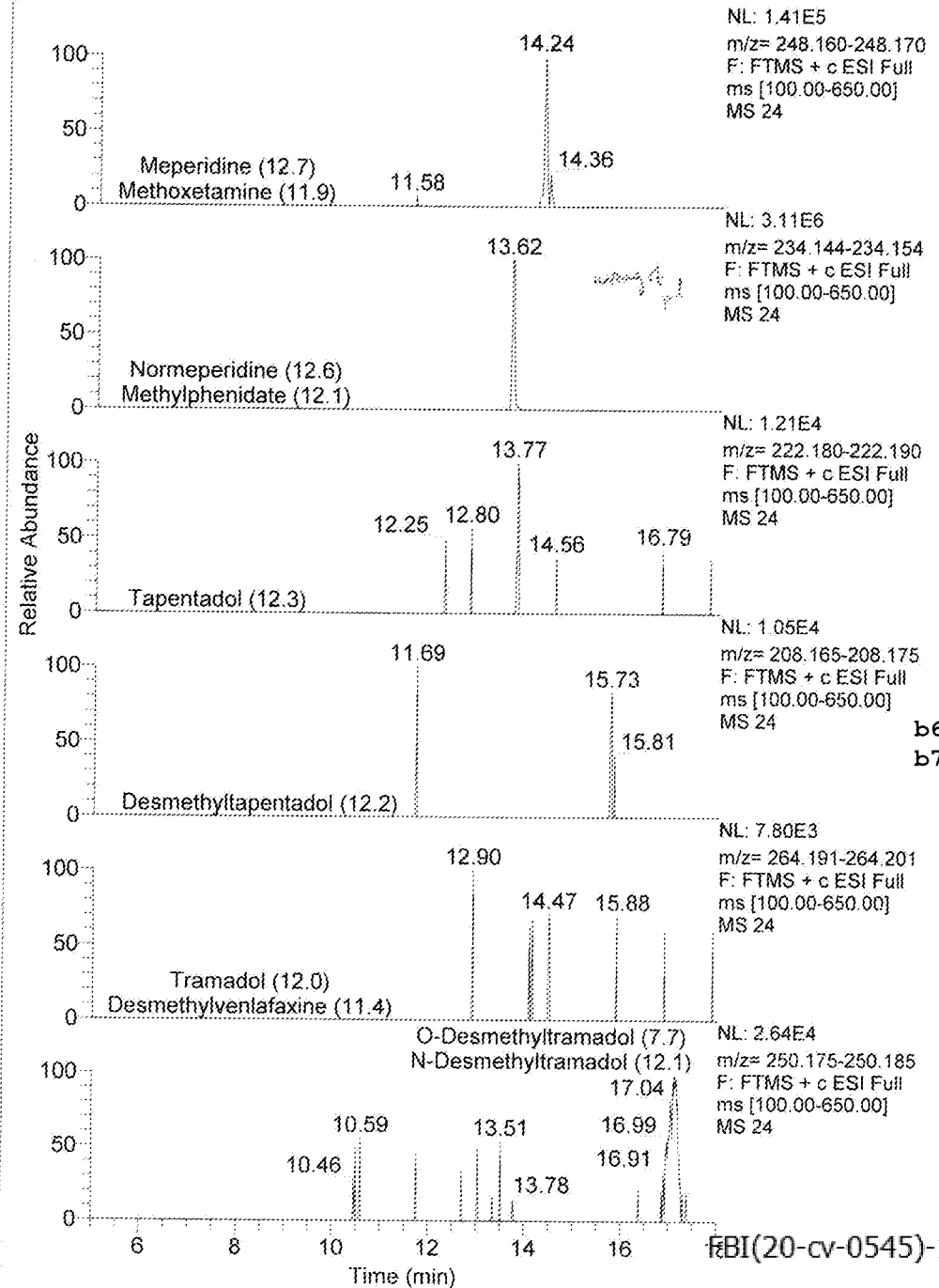
RT: 8.00 - 18.00

## LC-ESI-FTMS Data

## ANALGESICS-PART 2



RT: 5.00 - 18.00



b6 -1

b7C -1

FBI(20-cv-0545)-1458

10/4/2017 3:27:20 AM

2017-00469, 5, urine

b6 -1

b7C -1

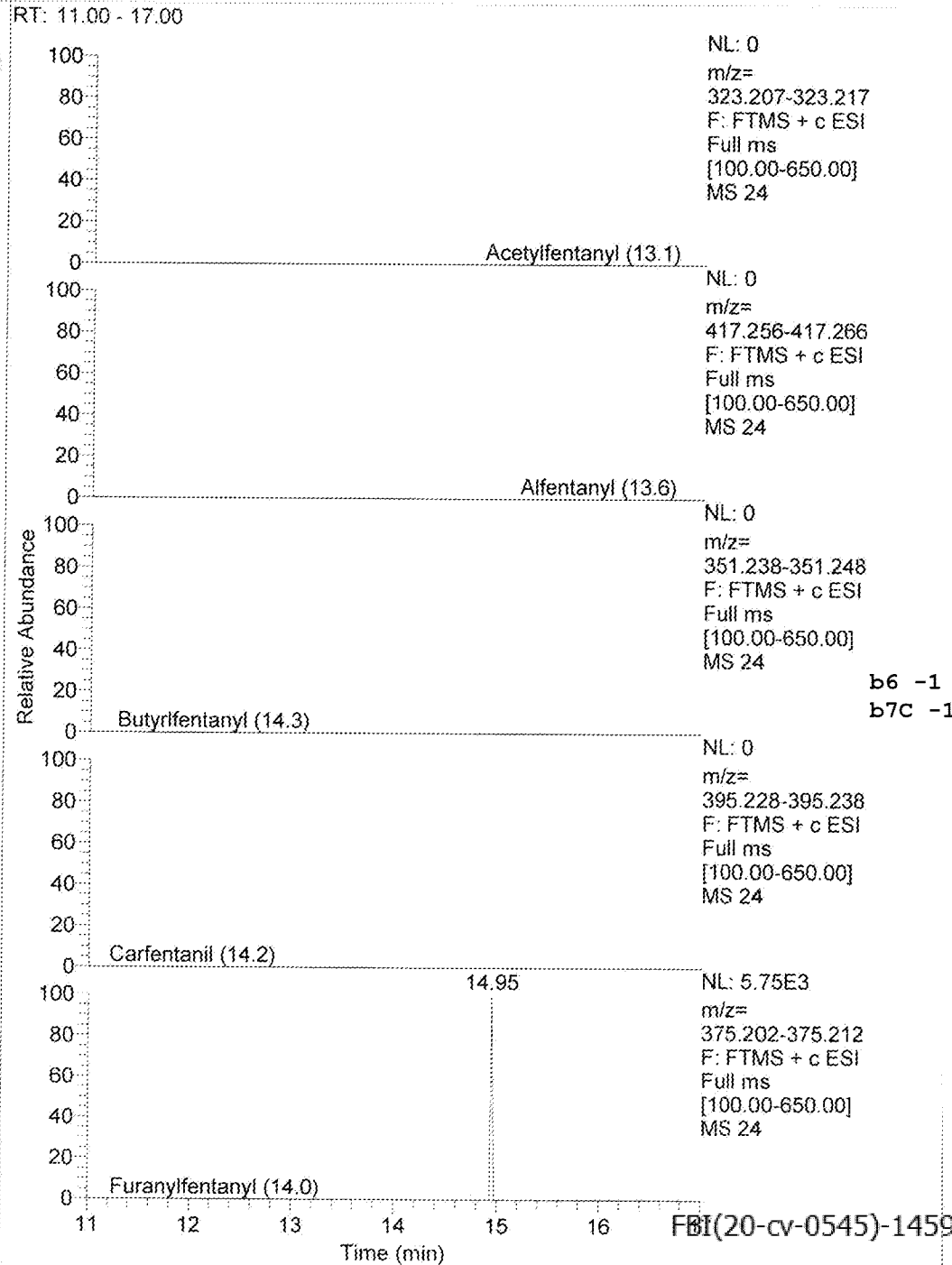
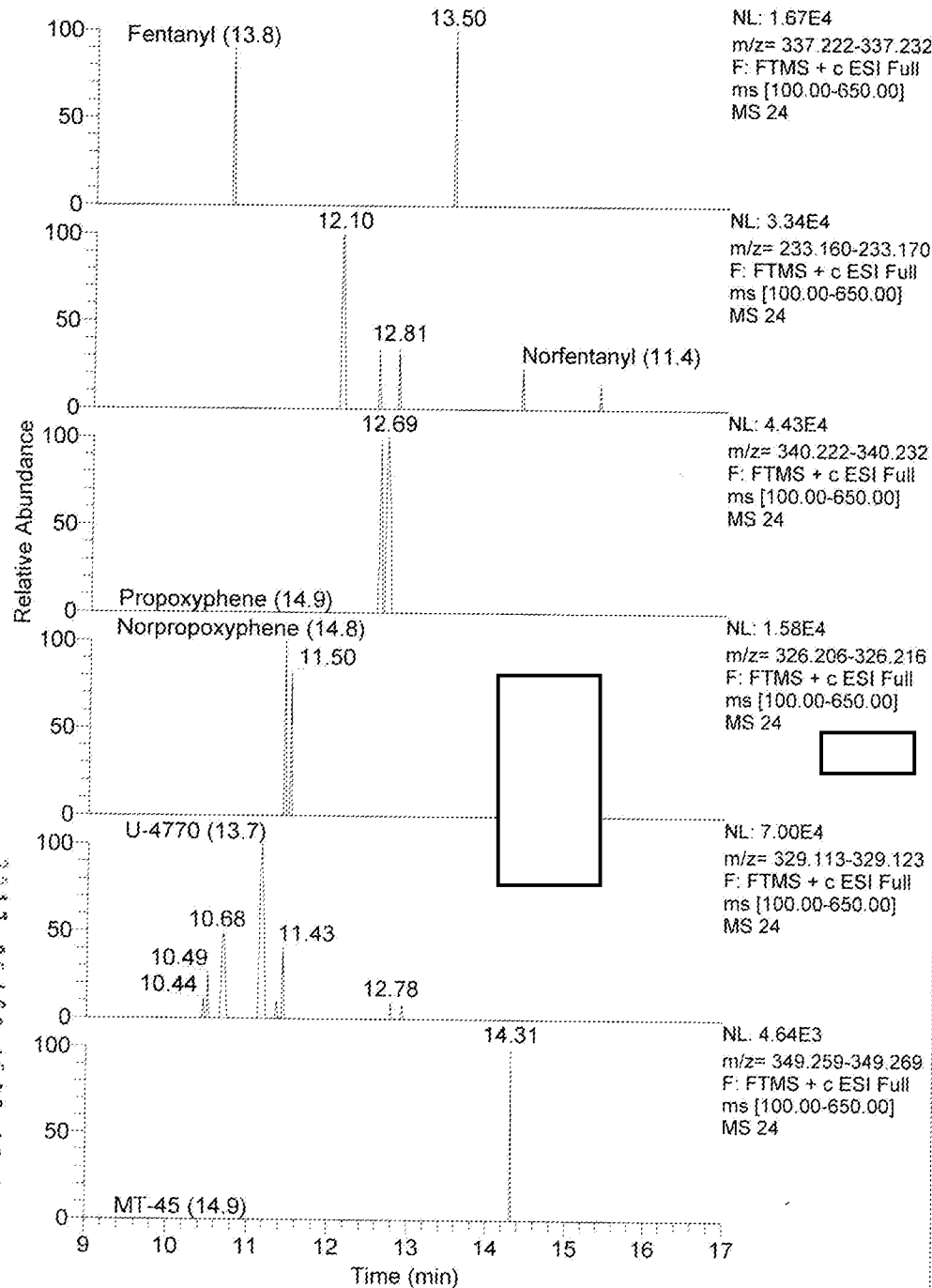
b7E -2

## Alkaline Drug Screen

RT: 9.00 - 17.00

## LC-ESI-FTMS Data

## ANALGESICS-PART 3



2017-00469 1027-2017

FBI(20-cv-0545)-1459

10/4/2017 3:27:20 AM

2017-00469, 5, urine

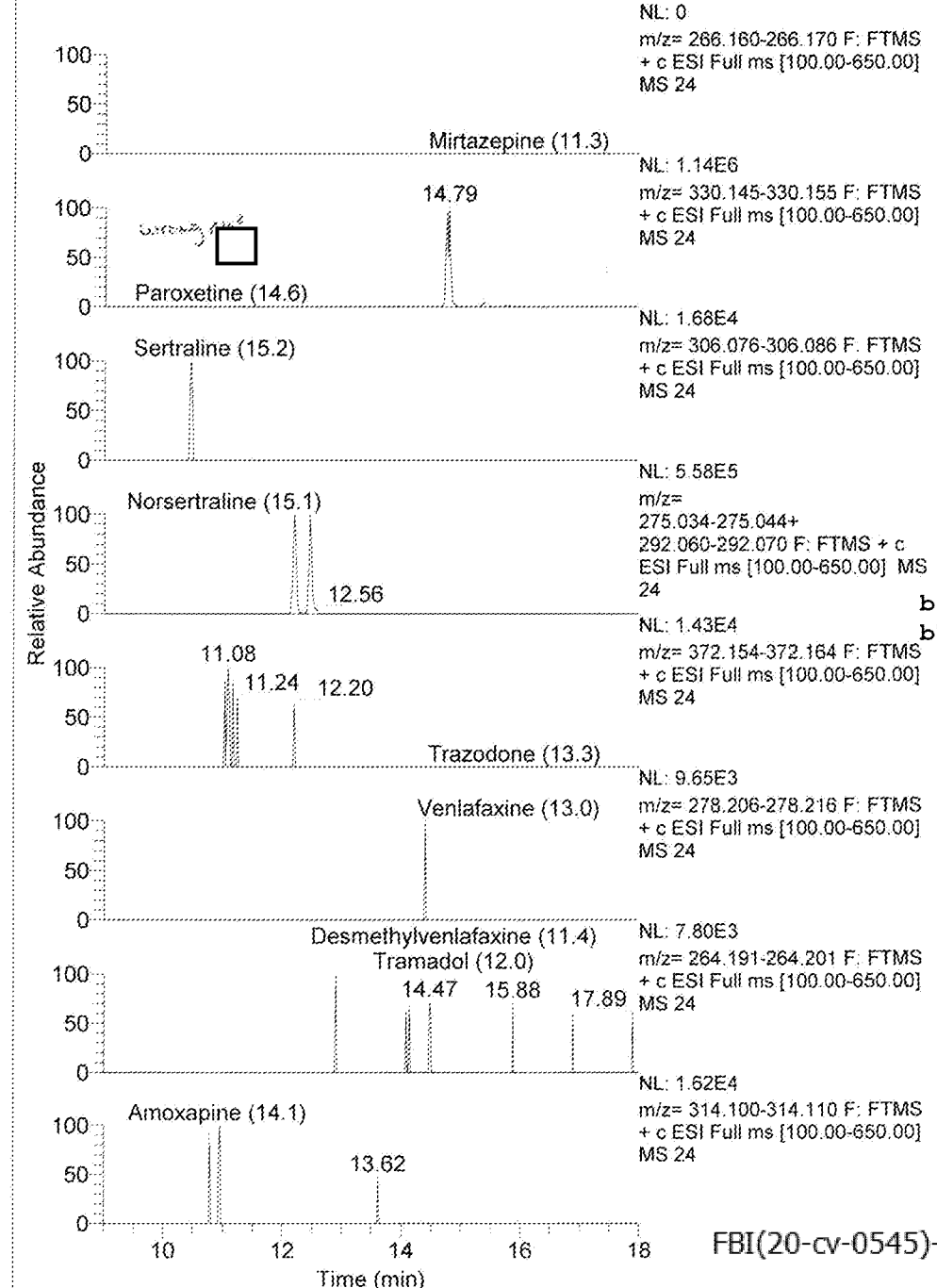
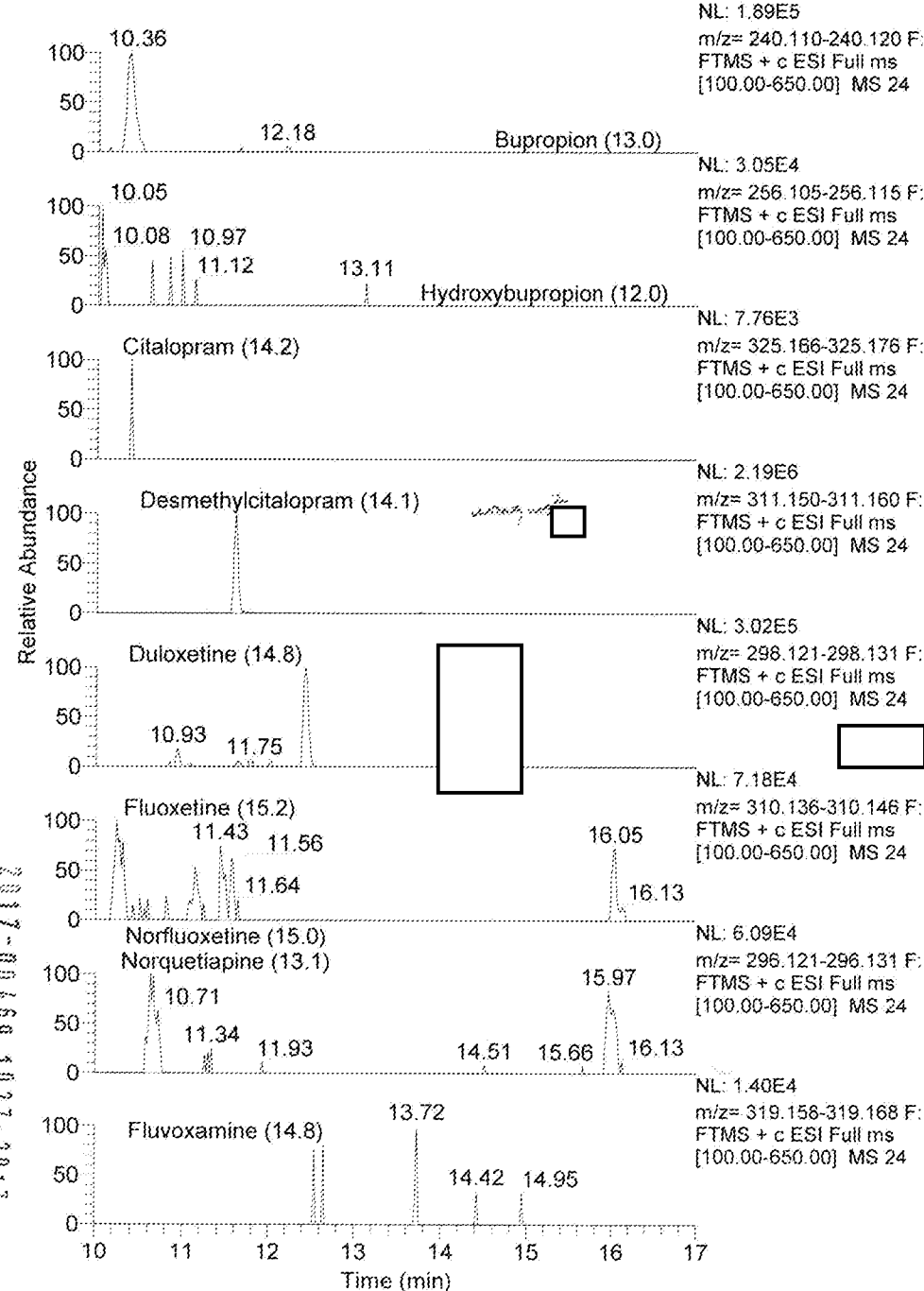
Alkaline Drug Screen

RT: 10.00 - 17.00

LC-ESI-FTMS Data

RT: 9.00 - 18.00

ANTIDEPRESSANTS



FBI(20-cv-0545)-1460

10/4/2017 3:27:20 AM

2017-00469, 5, urine

b6 -1

b7C -1

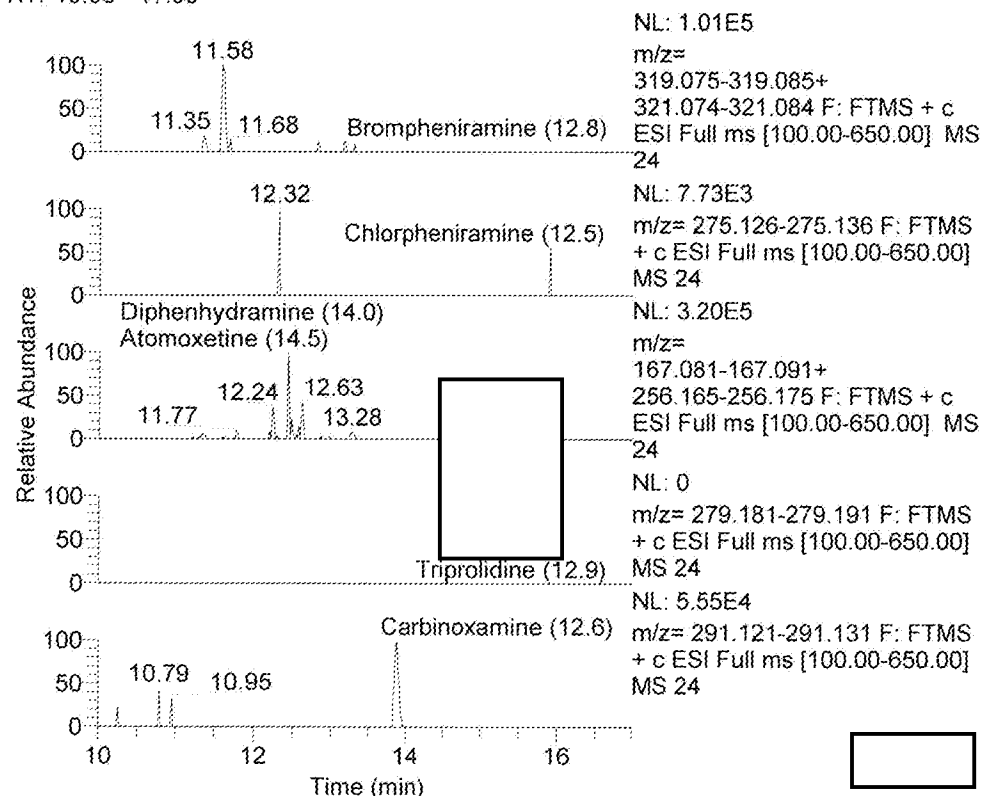
b7E -2

## Alkaline Drug Screen

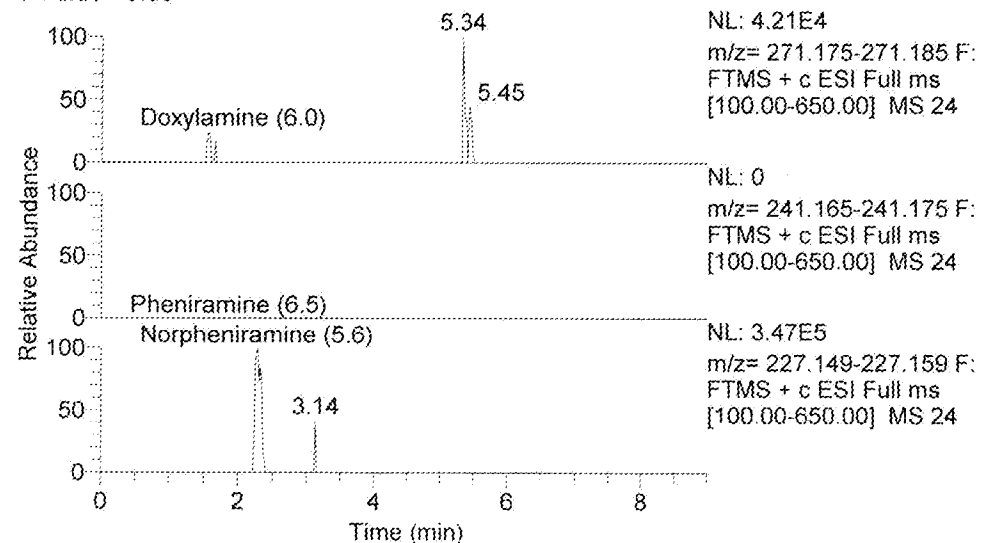
RT: 10.00 - 17.00

## LC-ESI-FTMS Data

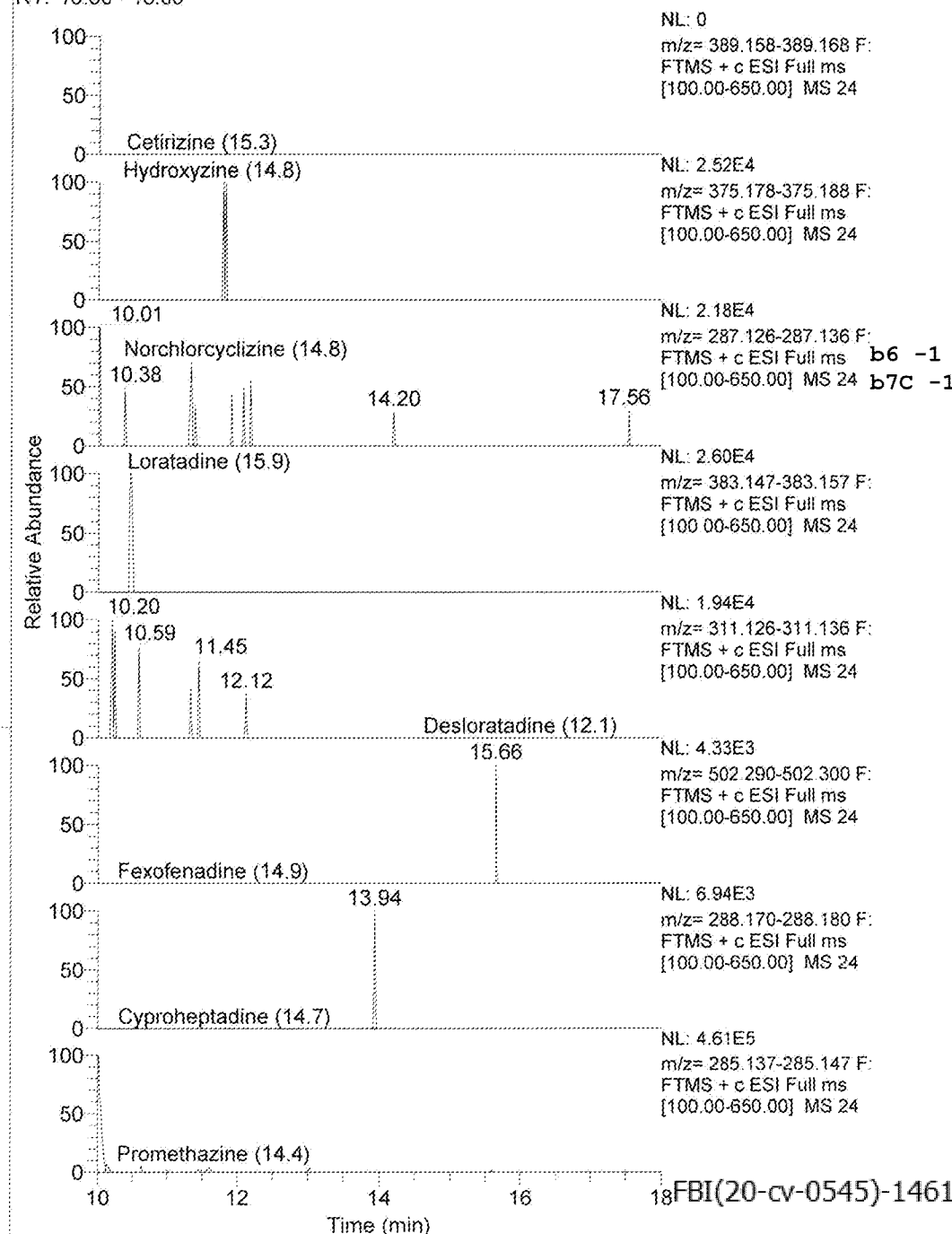
## ANTI-HISTAMINES



RT: 0.00 - 9.00



RT: 10.00 - 18.00



FBI(20-cv-0545)-1461

10/4/2017 3:27:20 AM

2017-00469, 5, urine

b6 -1

b7C -1

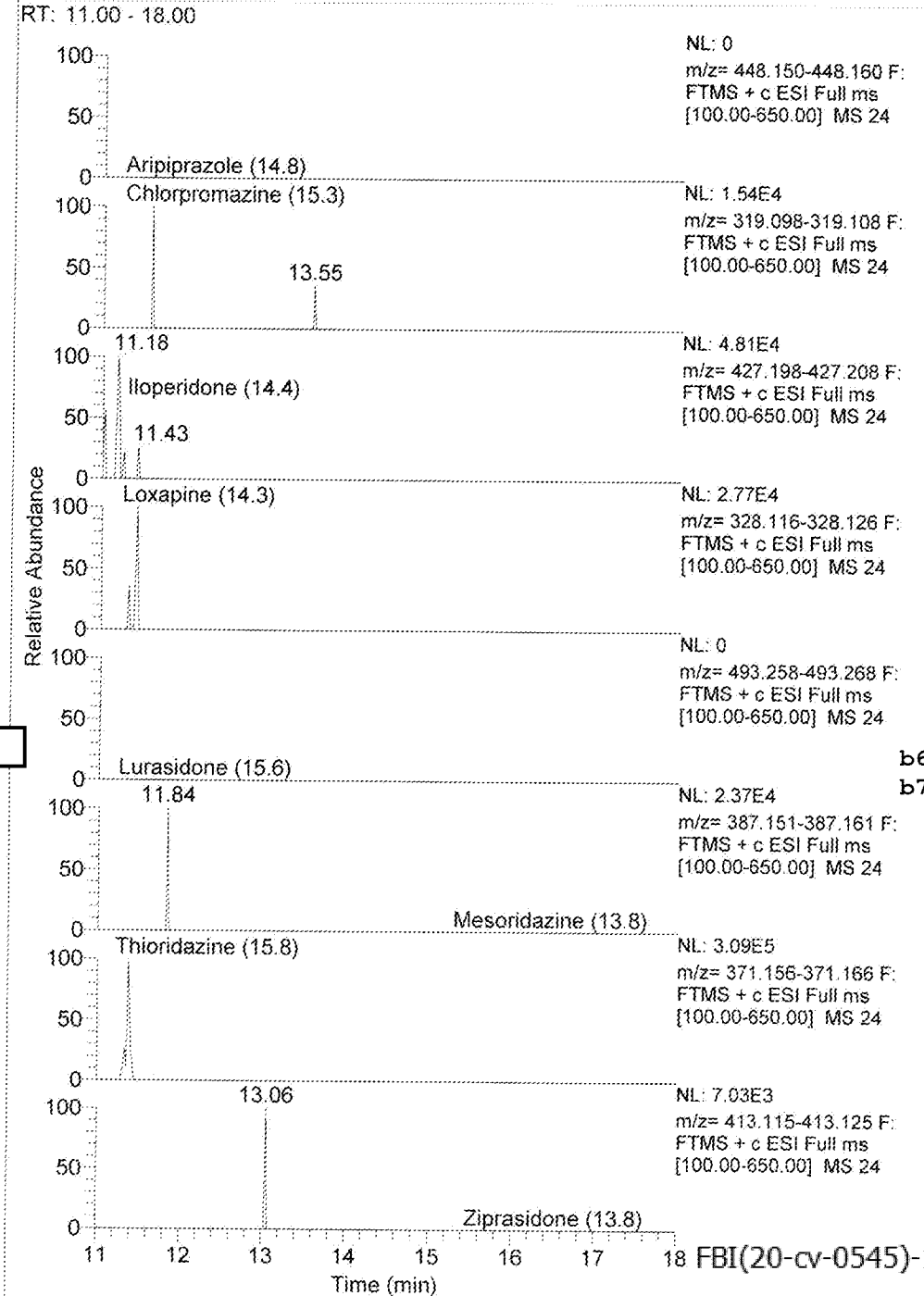
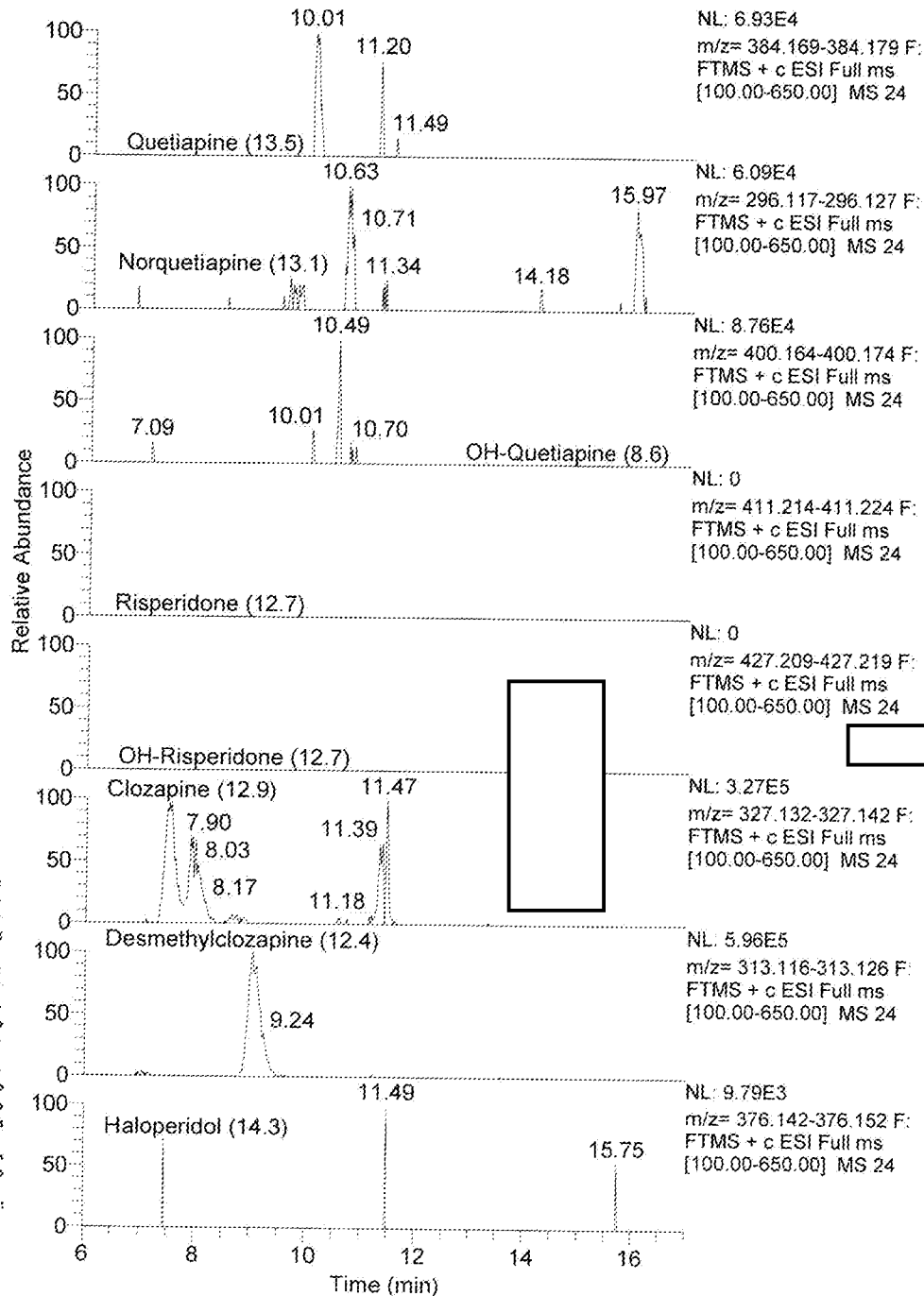
b7E -2

## Alkaline Drug Screen

RT: 6.00 - 17.00

## LC-ESI-FTMS Data

## ANTIPSYCHOTICS



2017-00469 1027-2017

b6 -1

b7C -1

FBI(20-cv-0545)-1462

[Redacted]

10/4/2017 3:27:20 AM

2017-00469, 5, urine

b6 -1

b7C -1

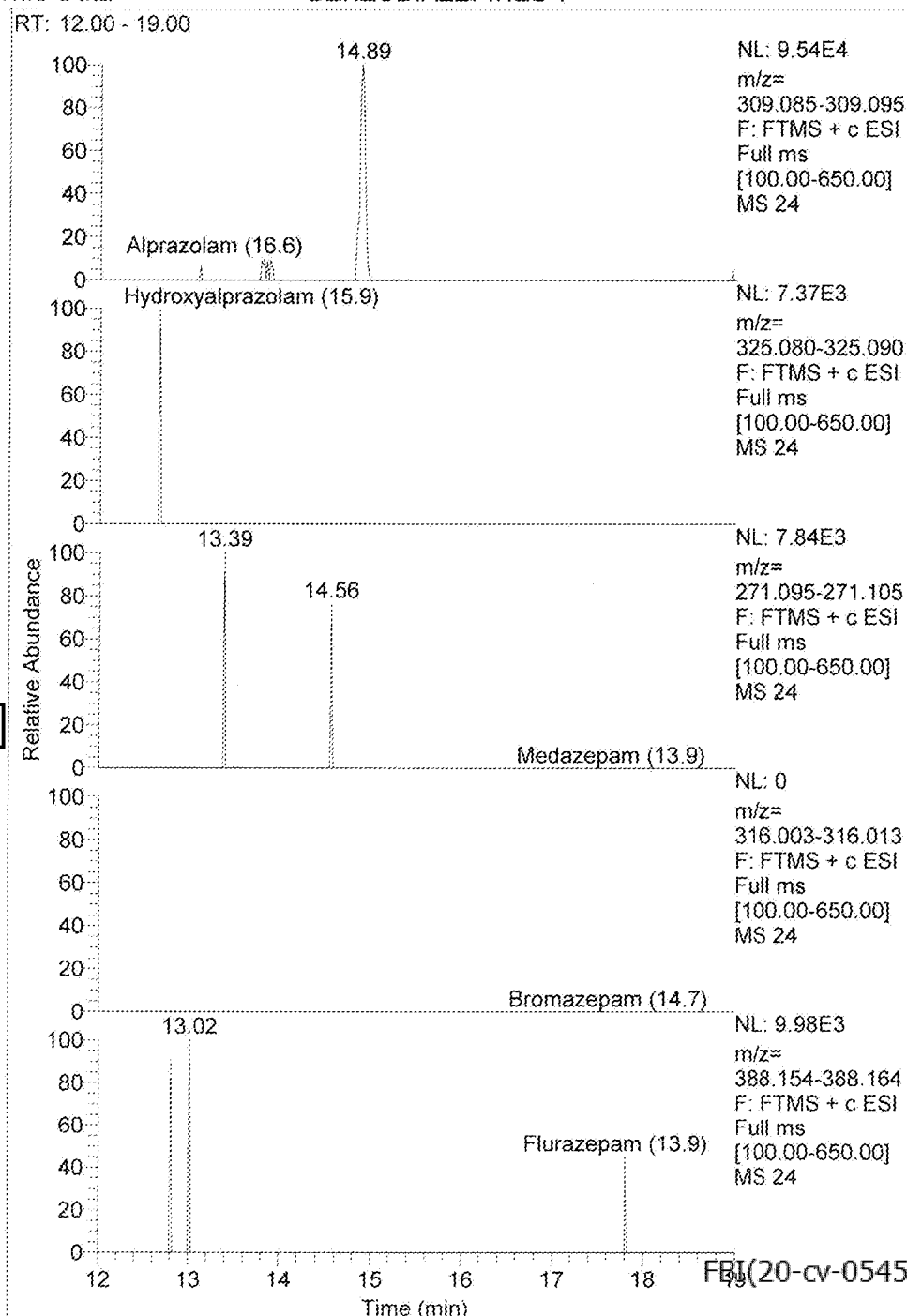
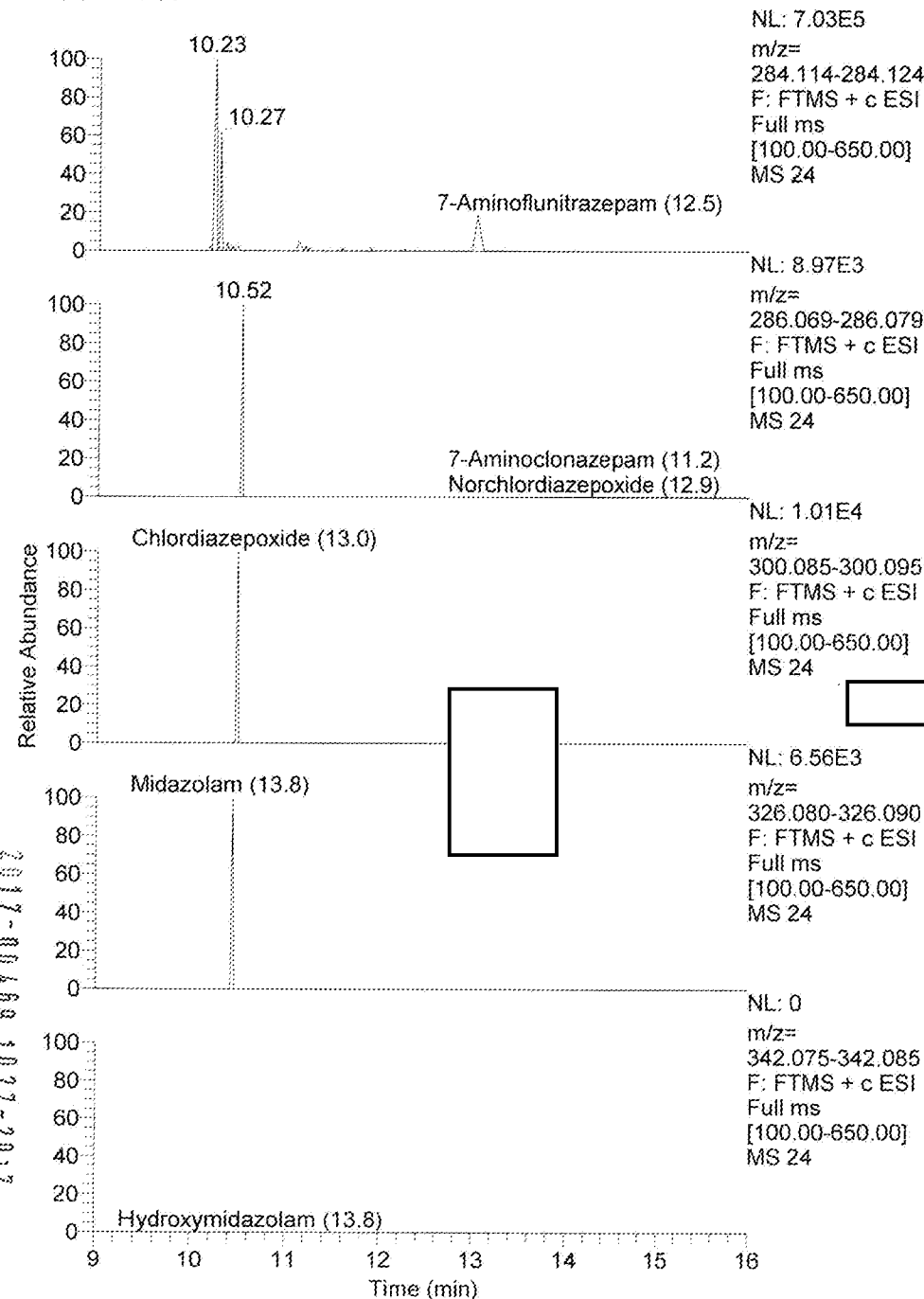
b7E -2

# Alkaline Drug Screen

RT: 9.00 - 16.00

## LC-ESI-FTMS Data

## BENZODIAZEPINES 1



b6 -1

b7C -1

10/4/2017 3:27:20 AM

2017-00469, 5, urine

b6 -1

b7C -1

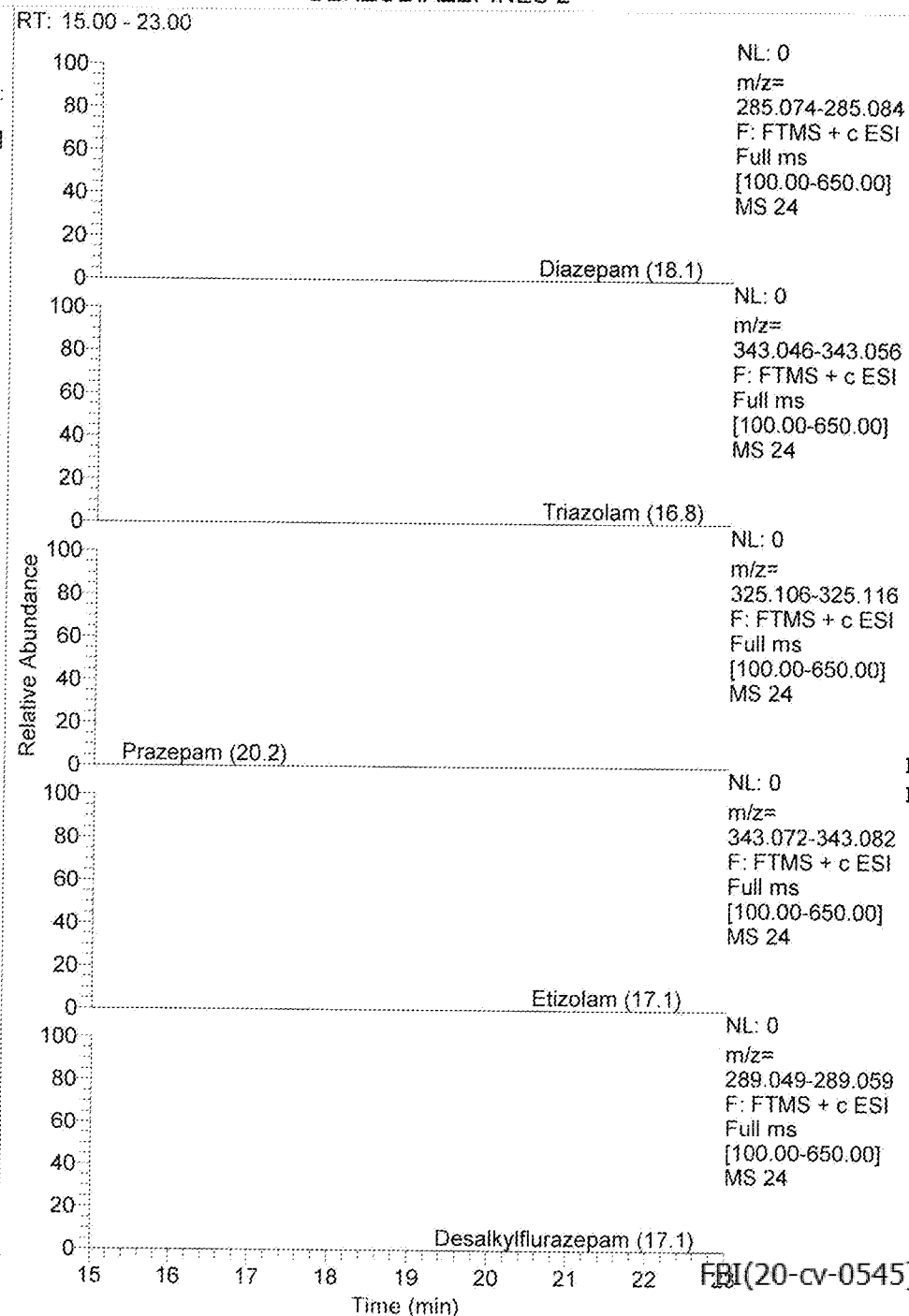
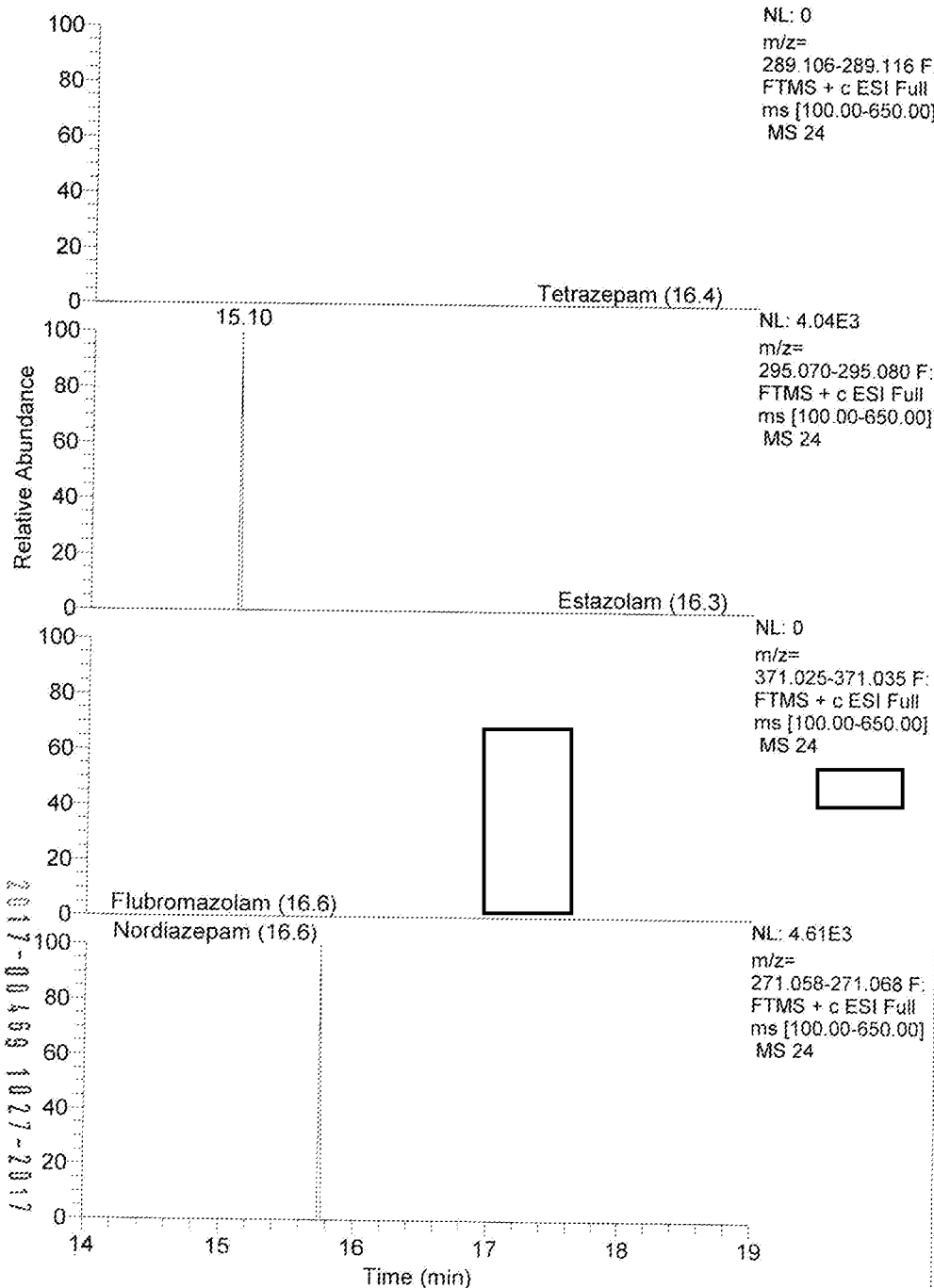
b7E -2

## Alkaline Drug Screen

RT: 14.00 - 19.00

## LC-ESI-FTMS Data

## BENZODIAZEPINES 2







10/4/2017 3:27:20 AM

2017-00469, 5, urine

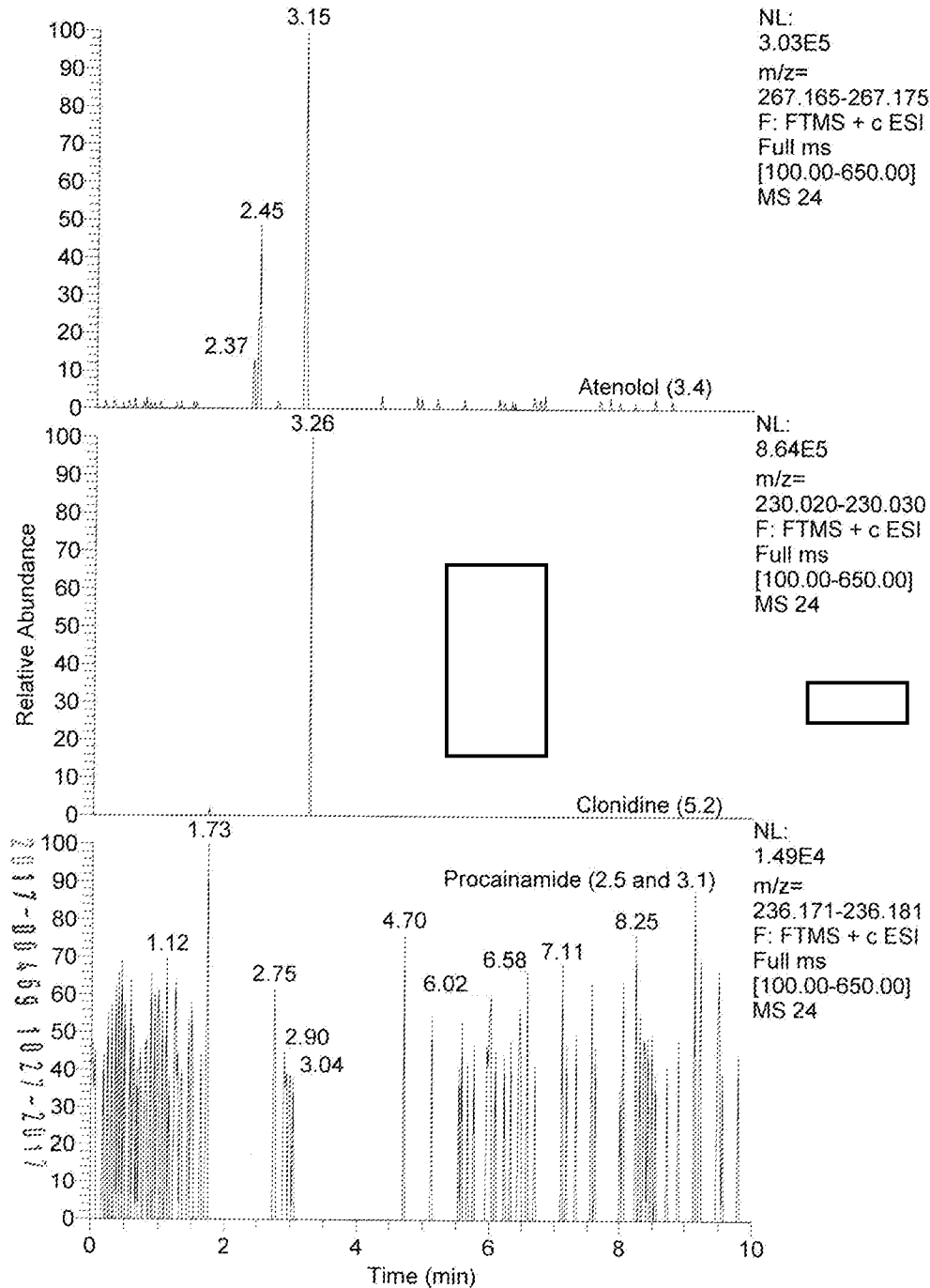
b6 -1

b7C -1

b7E -2

## Alkaline Drug Screen

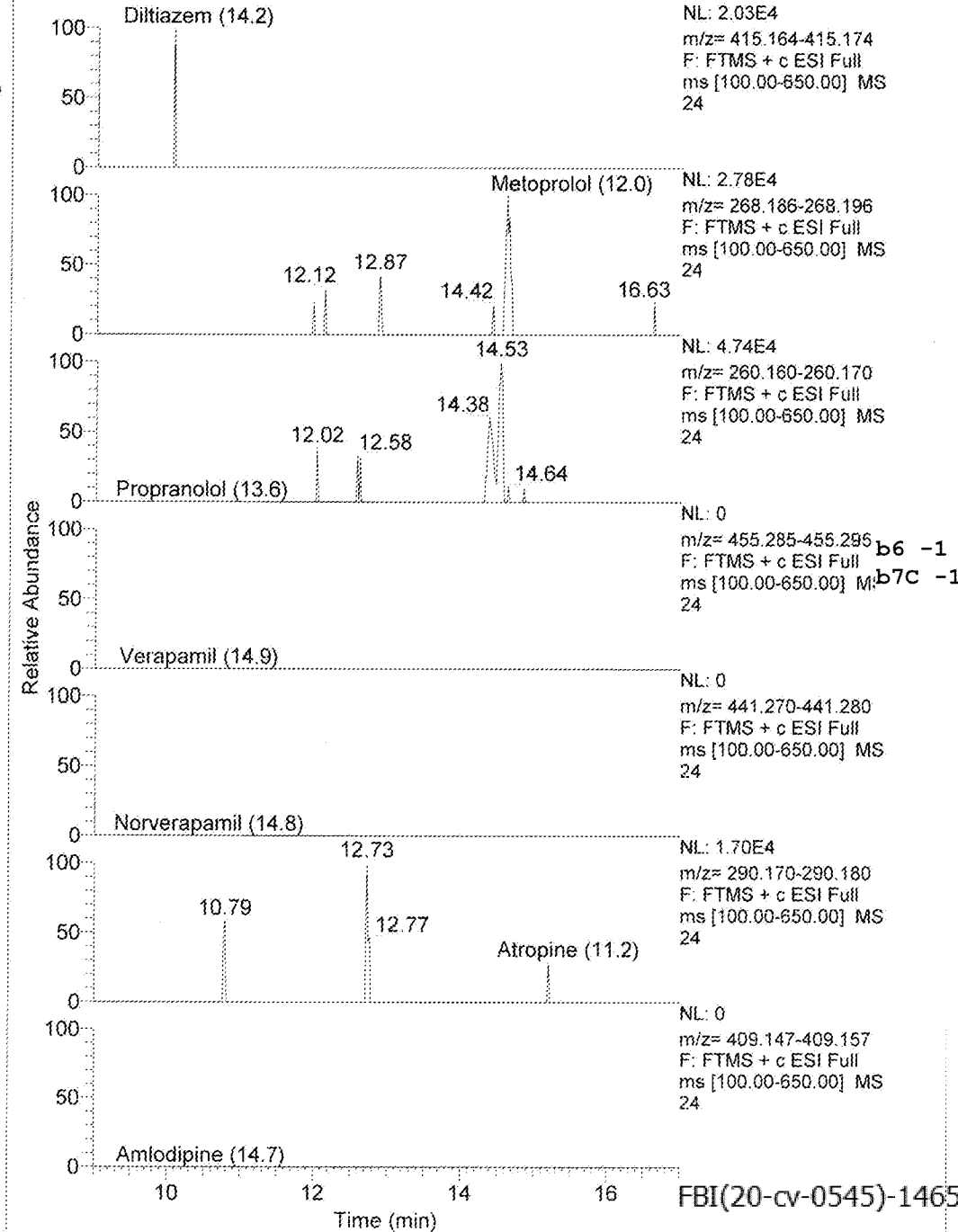
RT: 0.00 - 10.00



## LC-ESI-FTMS Data

## CARDIAC DRUGS

RT: 9.00 - 17.00



b6 -1

b7C -1

FBI(20-cv-0545)-1465

10/4/2017 3:27:20 AM

2017-00469, 5, urine

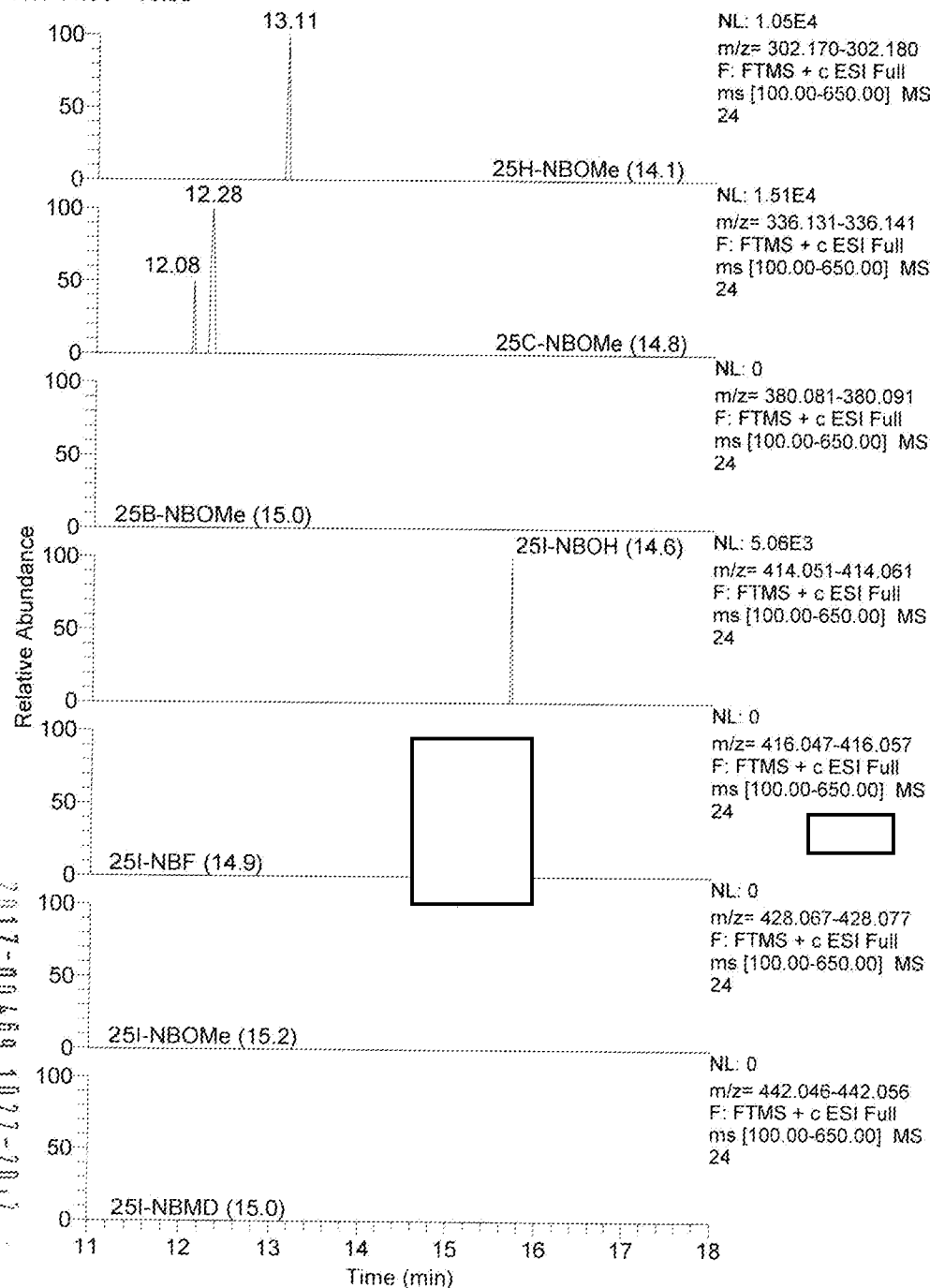
b6 -1

b7C -1

b7E -2

## Alkaline Drug Screen

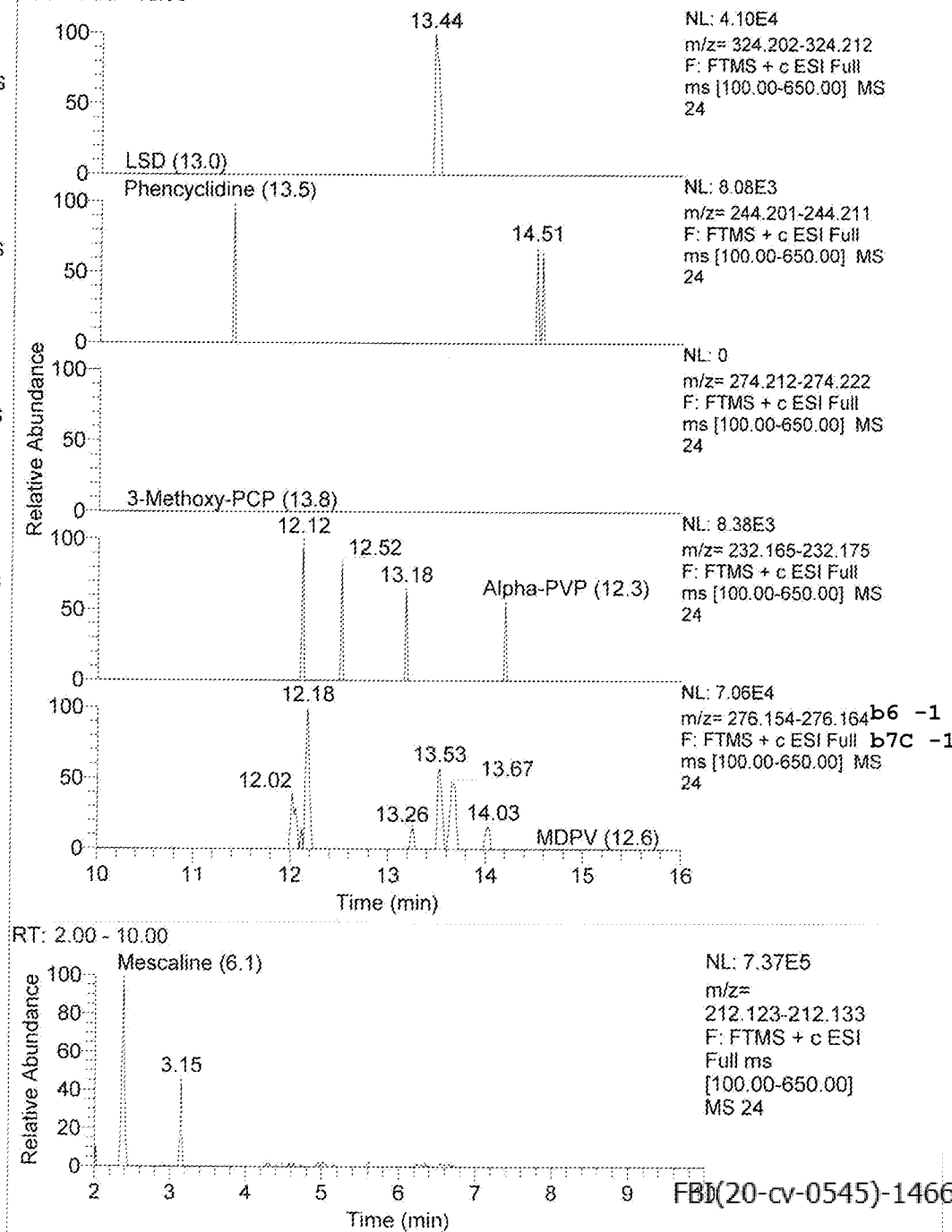
RT: 11.00 - 18.00



## LC-ESI-FTMS Data

## HALLUCINOGENS

RT: 10.00 - 16.00



FBI(20-cv-0545)-1466

[Redacted]

10/4/2017 3:27:20 AM

2017-00469, 5, urine

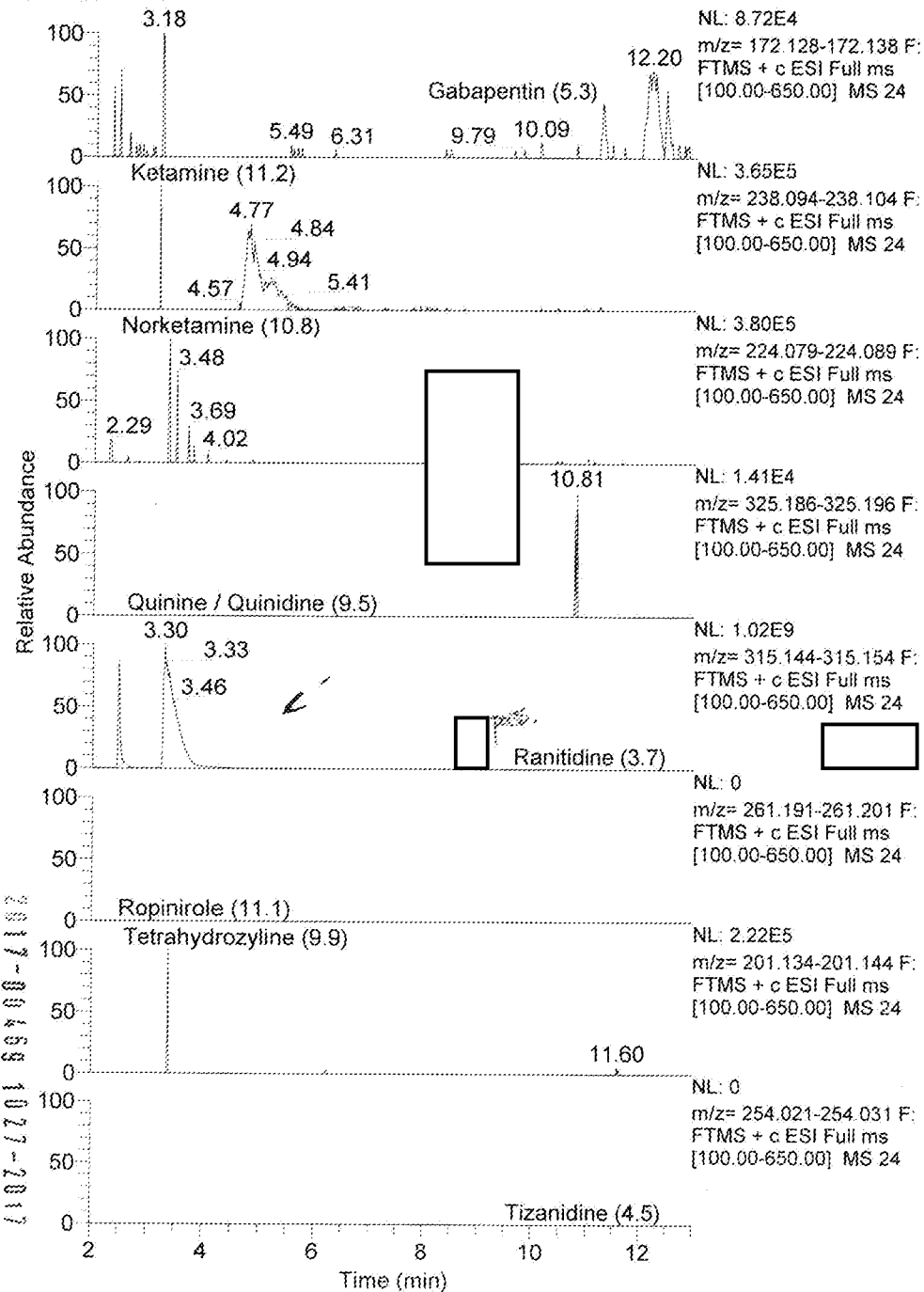
b6 -1  
b7C -1  
b7E -2

Alkaline Drug Screen

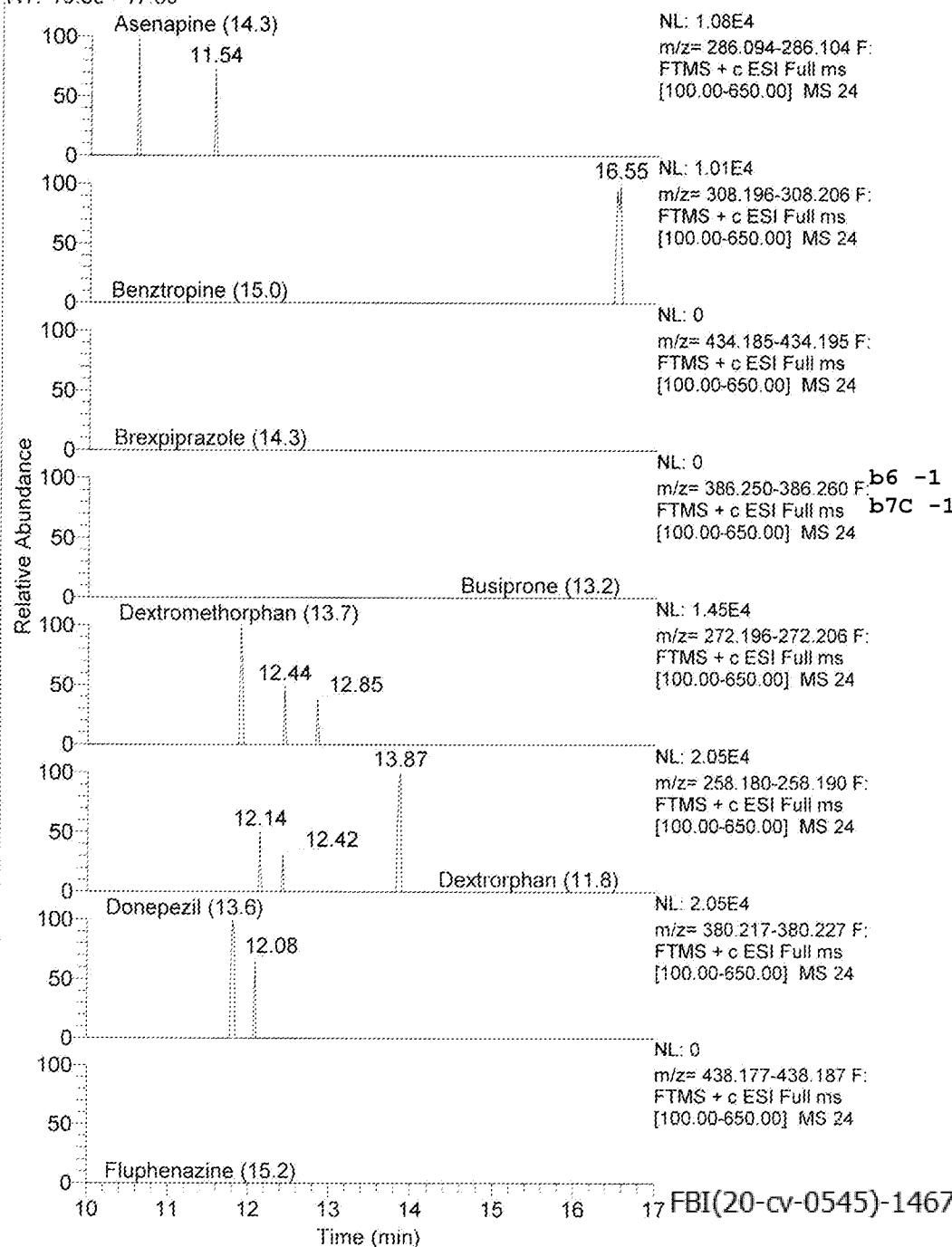
LC-ESI-FTMS Data

MISCELLANEOUS 1

RT: 2.00 - 13.00



RT: 10.00 - 17.00



2017-00469-102

FBI(20-cv-0545)-1467



10/4/2017 3:27:20 AM

2017-00469, 5, urine

b6 -1

b7C -1

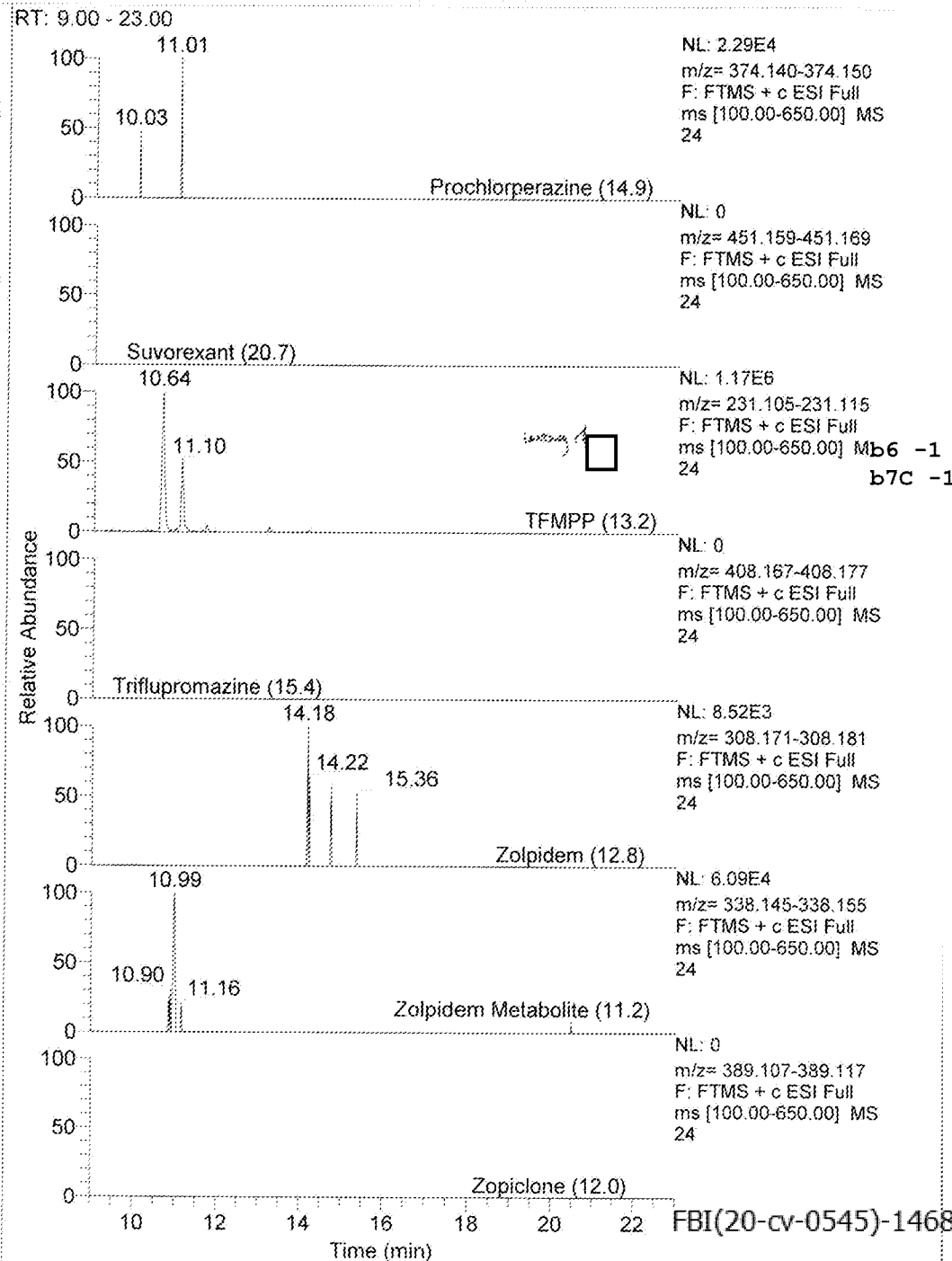
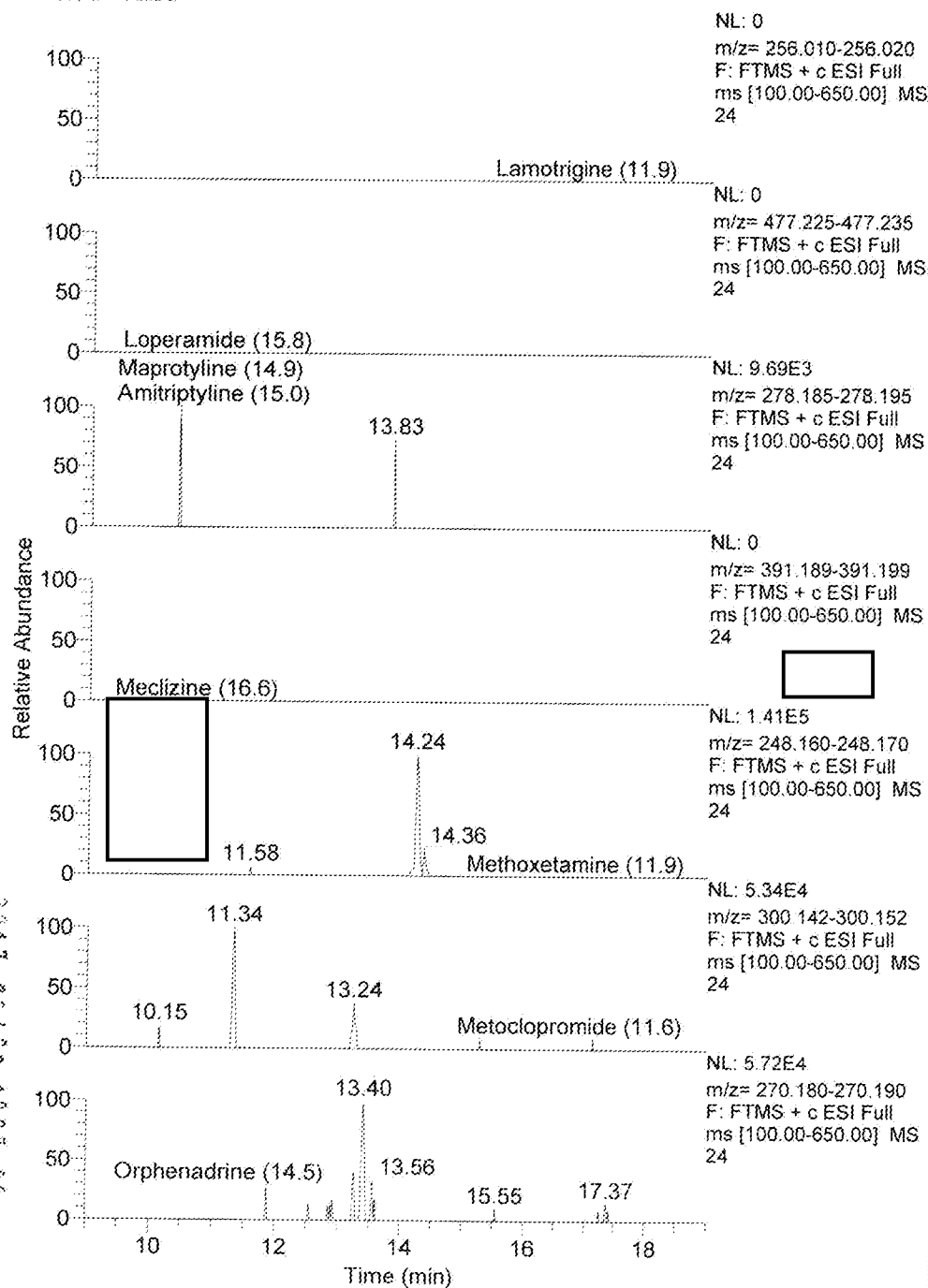
b7E -2

## Alkaline Drug Screen

RT: 9.00 - 19.00

## LC-ESI-FTMS Data

## MISCELLANEOUS 2



FBI(20-cv-0545)-1468

[Redacted]

10/4/2017 3:27:20 AM

2017-00469, 5, urine

b6 -1

b7C -1

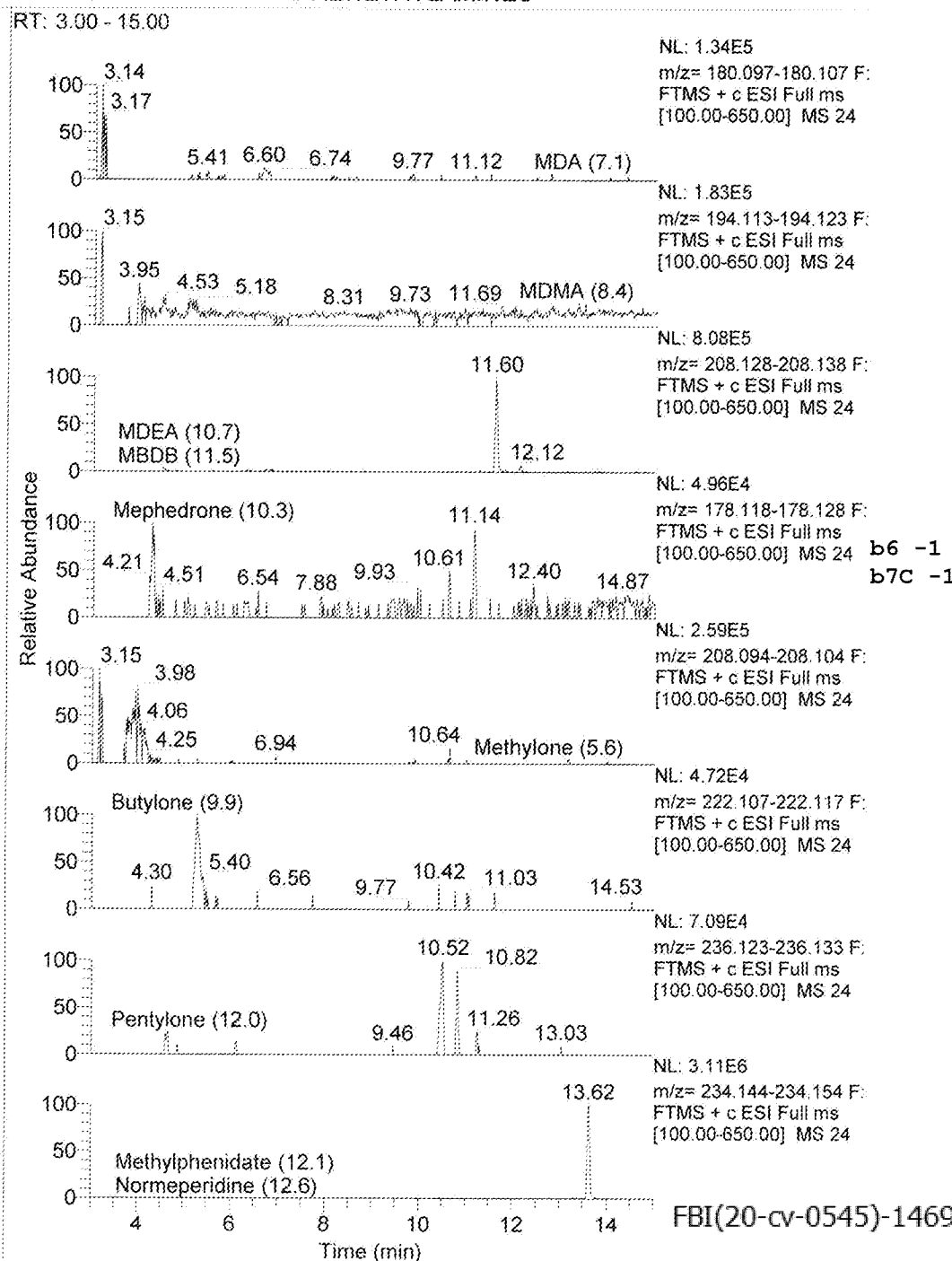
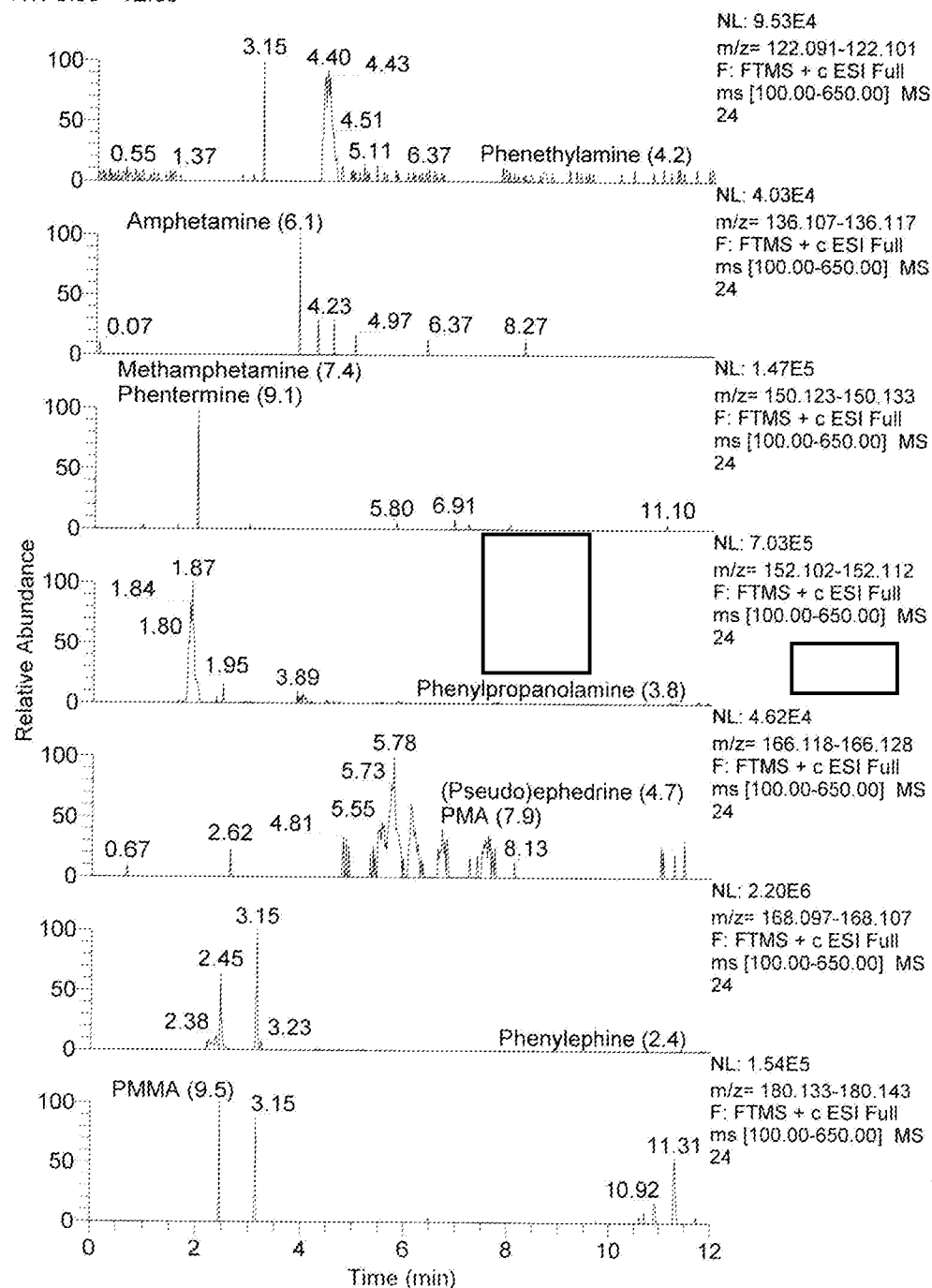
b7E -2

# Alkaline Drug Screen

RT: 0.00 - 12.00

## LC-ESI-FTMS Data

## PHENETHYLAMINES



FBI(20-cv-0545)-1469

[Redacted]

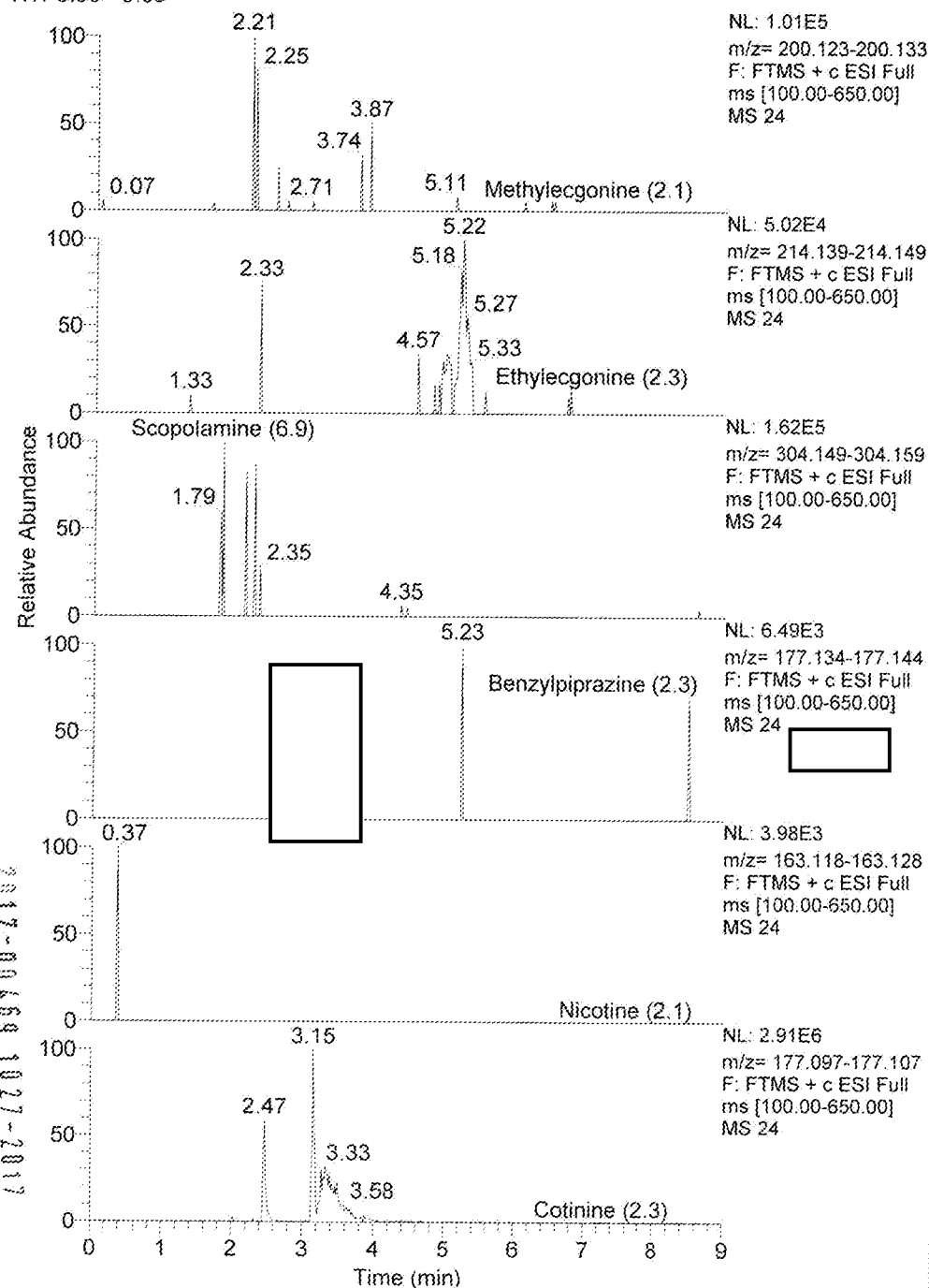
10/4/2017 3:27:20 AM

2017-00469, 5, urine

b6 -1  
b7C -1  
b7E -2

# Alkaline Drug Screen

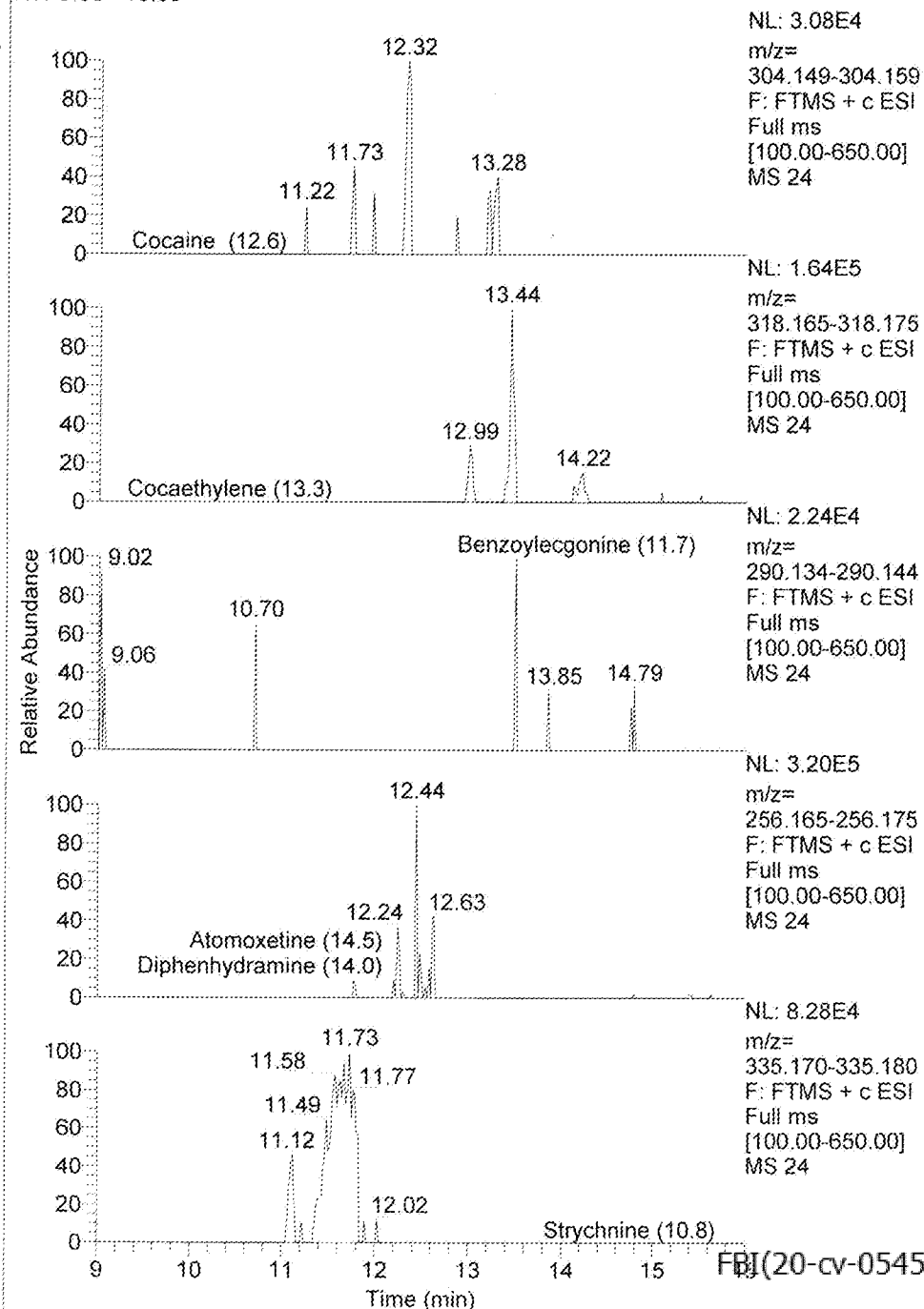
RT: 0.00 - 9.00



# LC-ESI-FTMS Data

RT: 9.00 - 16.00

# STIMULANTS



b6 -1  
b7C -1

2017-00469 1027-2017

FBI(20-cv-0545)-1470



10/4/2017 3:27:20 AM

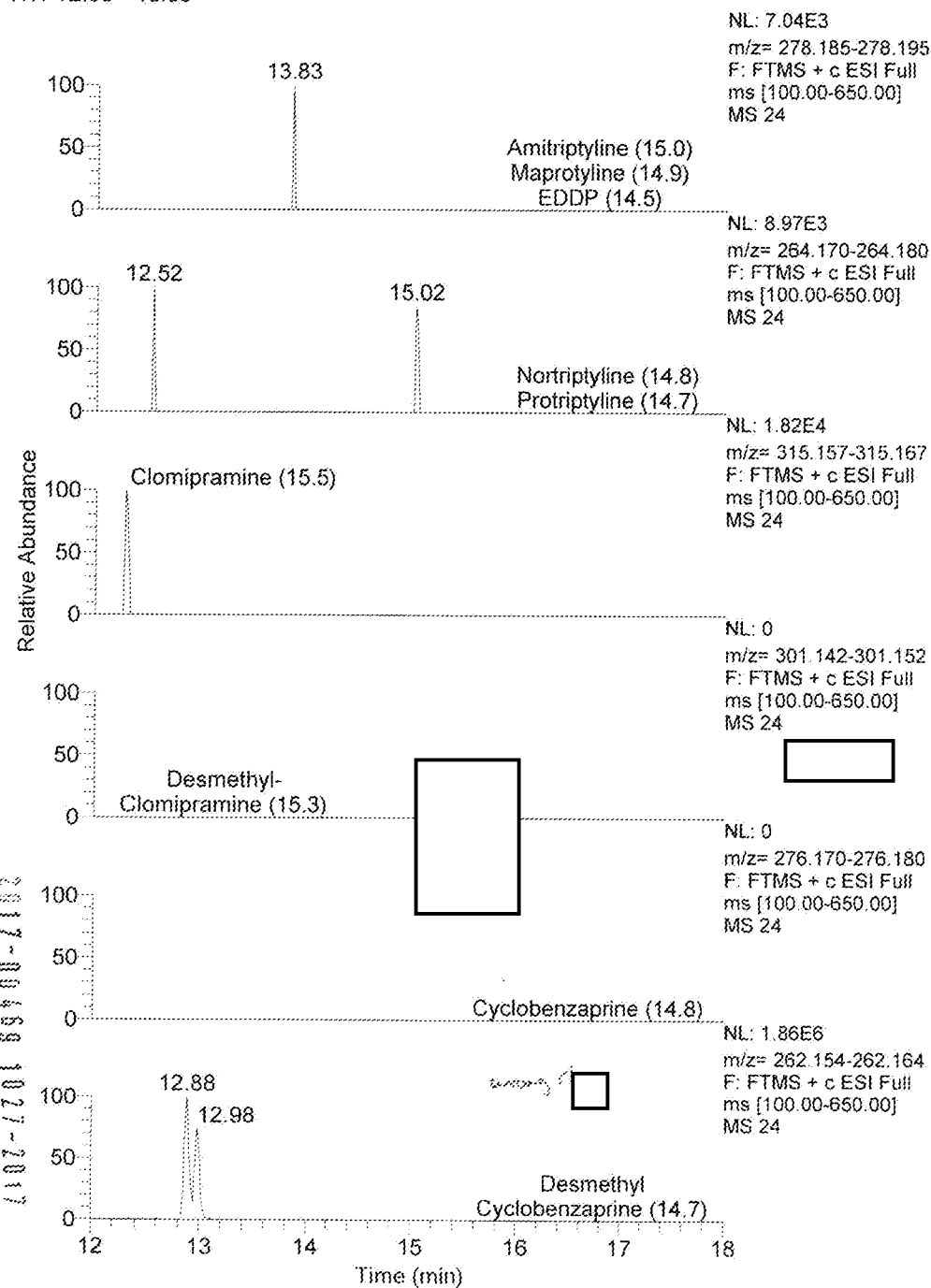
2017-00469, 5, urine

b6 -1  
b7C -1  
b7E -2

## Alkaline Drug Screen

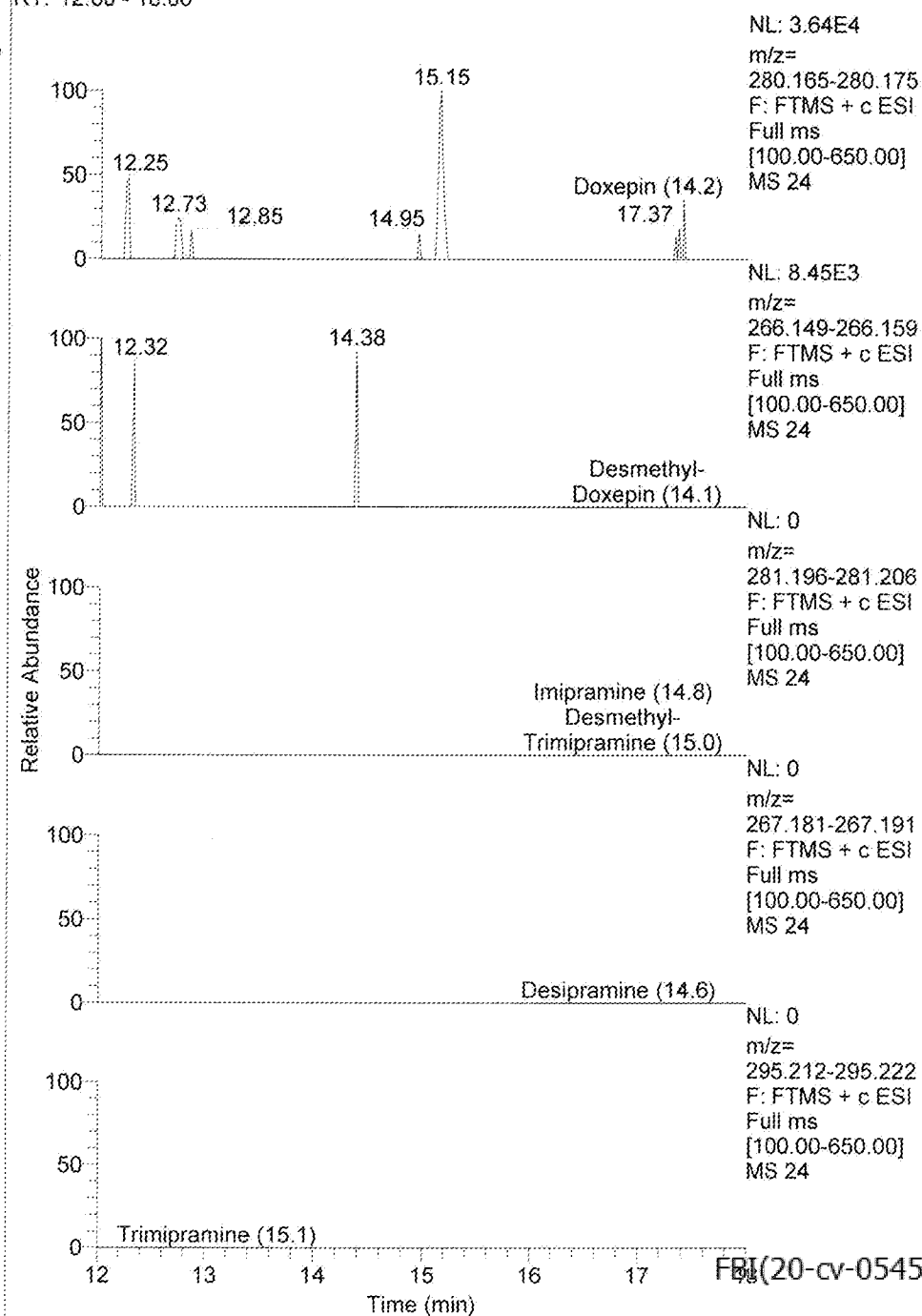
RT: 12.00 - 18.00

## LC-ESI-FTMS Data



## TRICYCLICS

RT: 12.00 - 18.00

b6 -1  
b7C -1

FBI(20-cv-0545)-1471

10/4/2017 2:49:36 AM

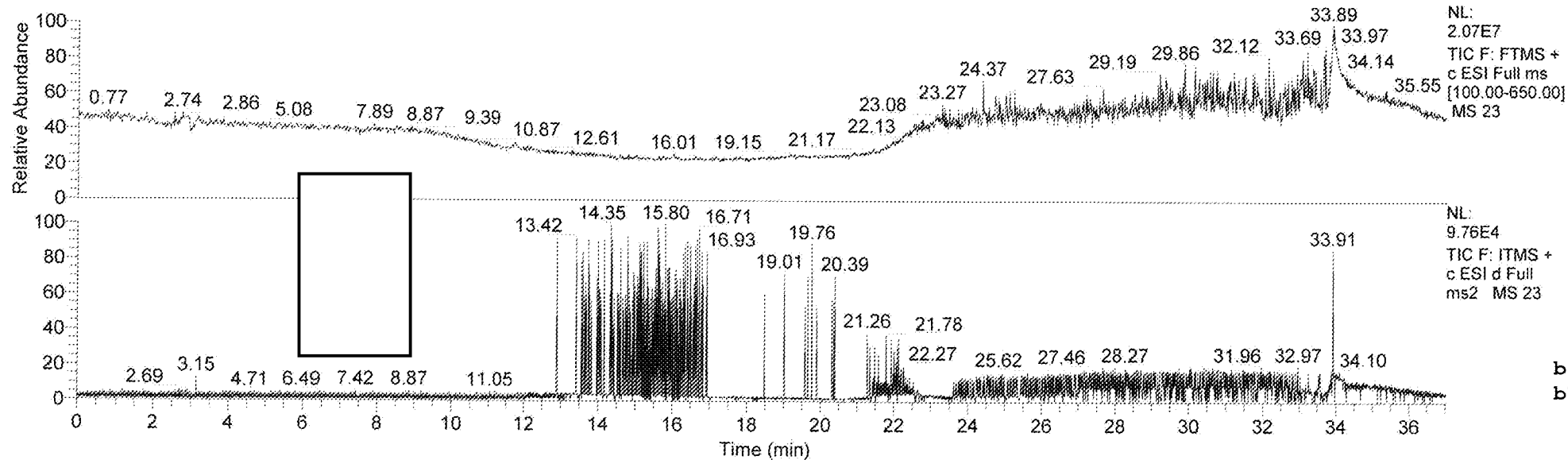
sb

b6 -1

b7C -1

b7E -2

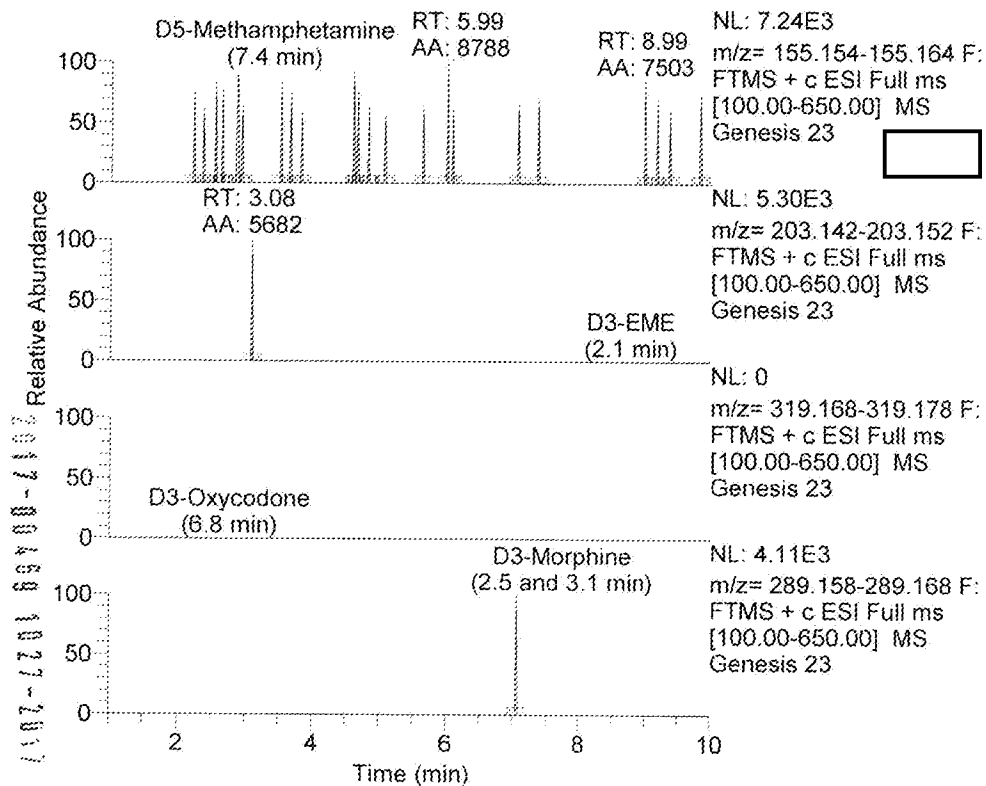
RT: 0.00 - 37.01



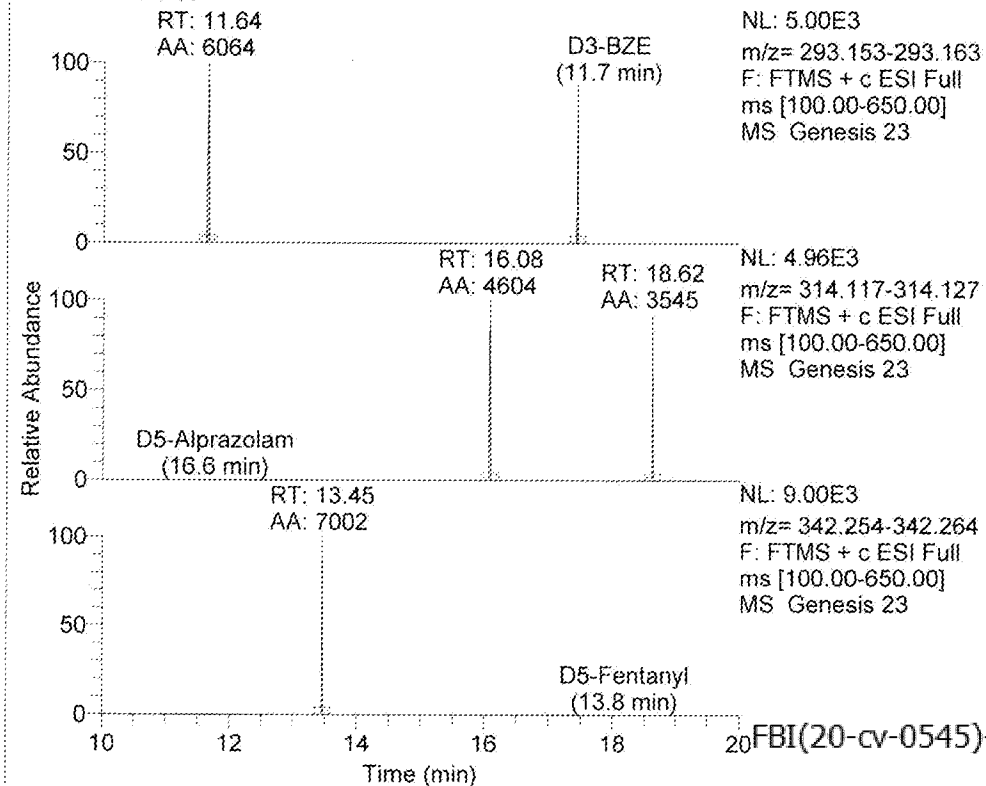
b6 -1

b7C -1

RT: 1.00 - 10.00



RT: 10.00 - 20.00



FBI(20-cv-0545)-1472



10/4/2017 4:42:46 AM

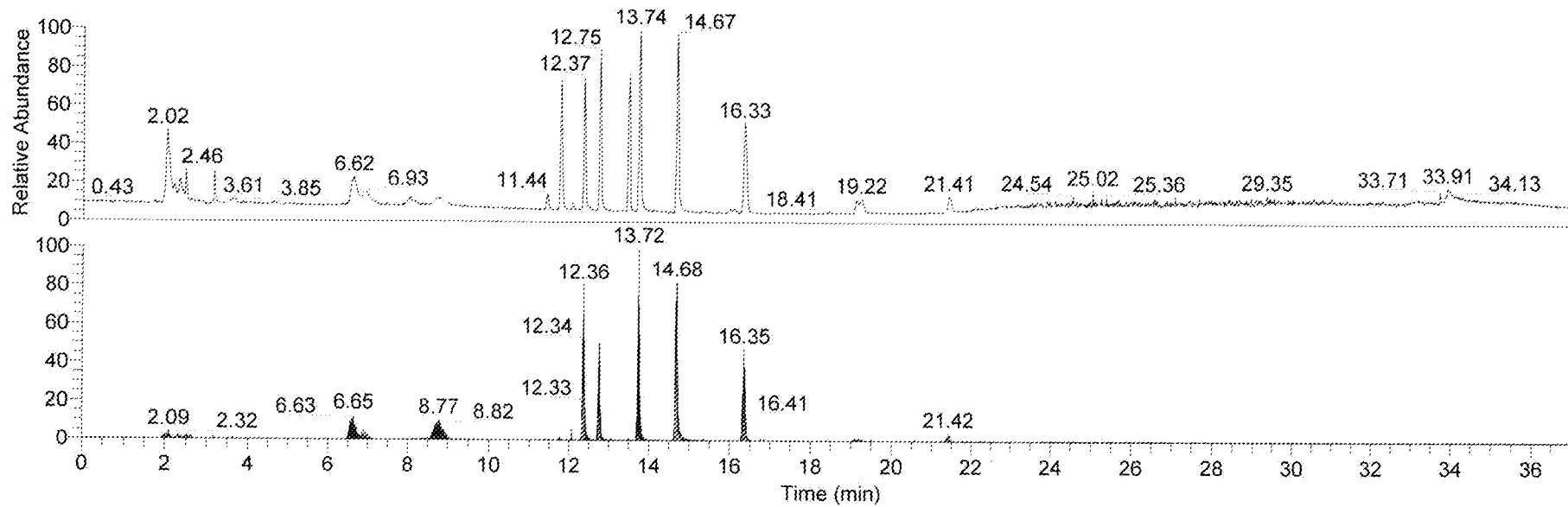
pcu

b6 -1

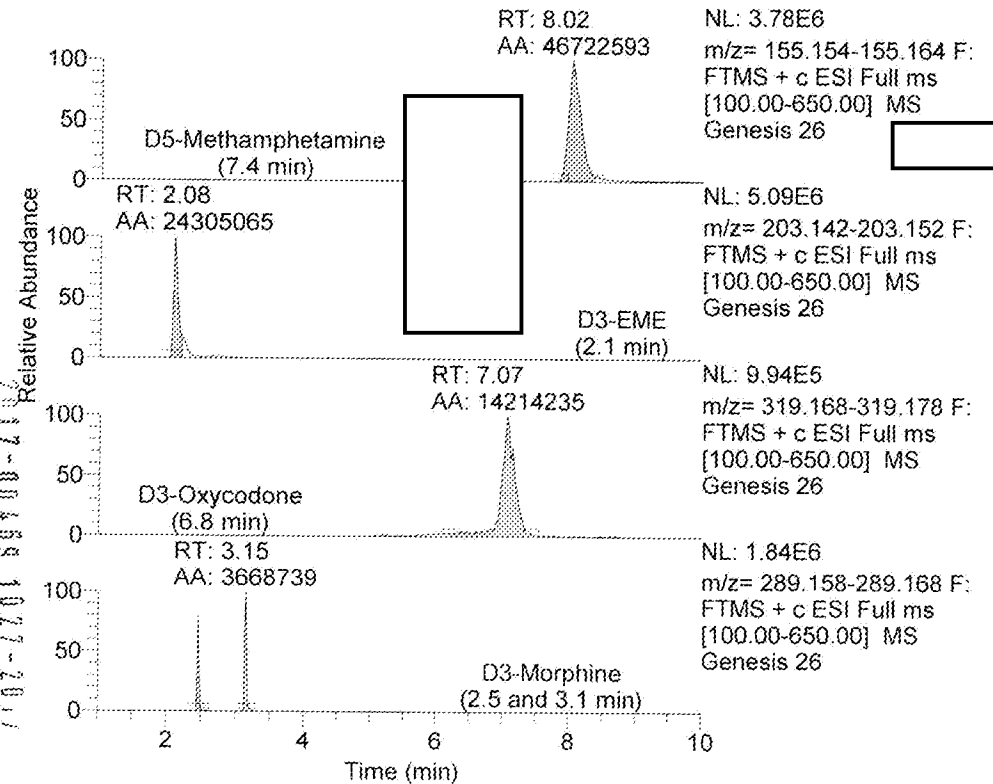
b7C -1

b7E -2

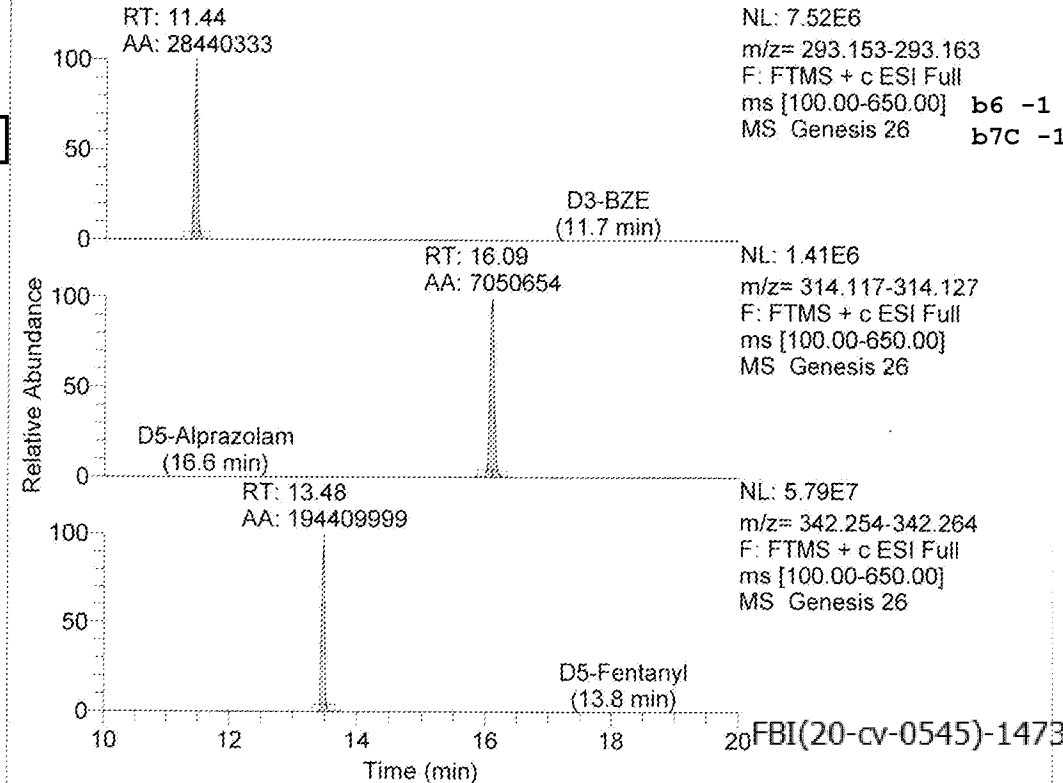
RT: 0.00 - 37.03



RT: 1.00 - 10.00



RT: 10.00 - 20.00



FBI(20-cv-0545)-1473

10/4/2017 4:42:46 AM

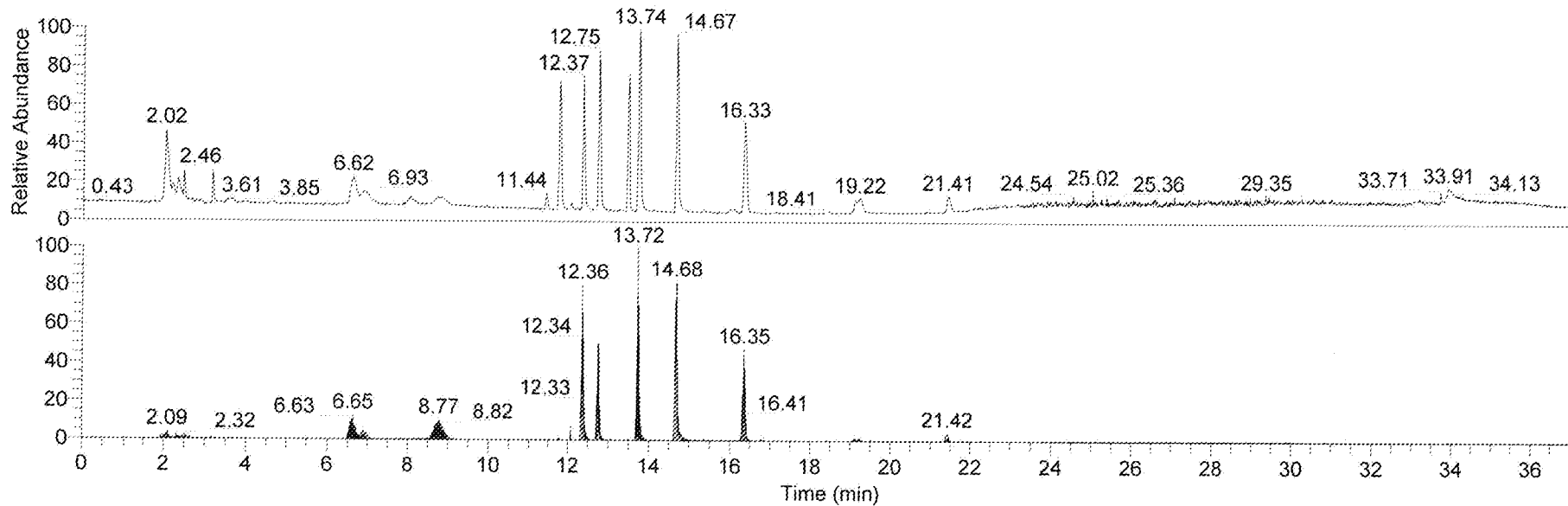
pcu

b6 -1

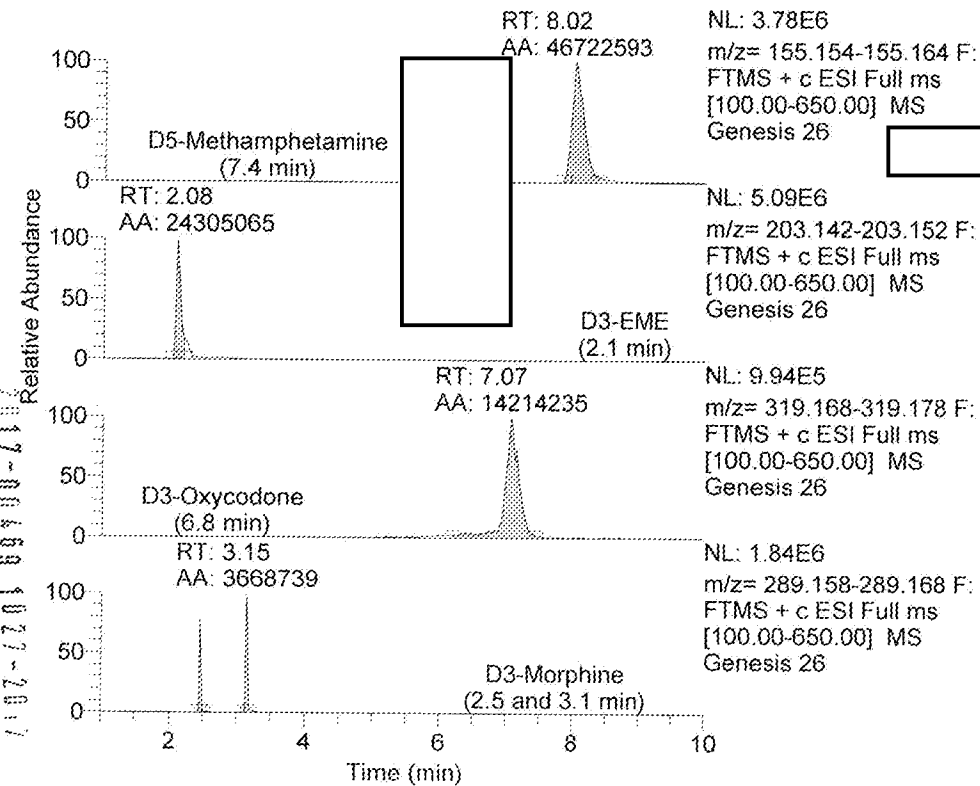
b7C -1

b7E -2

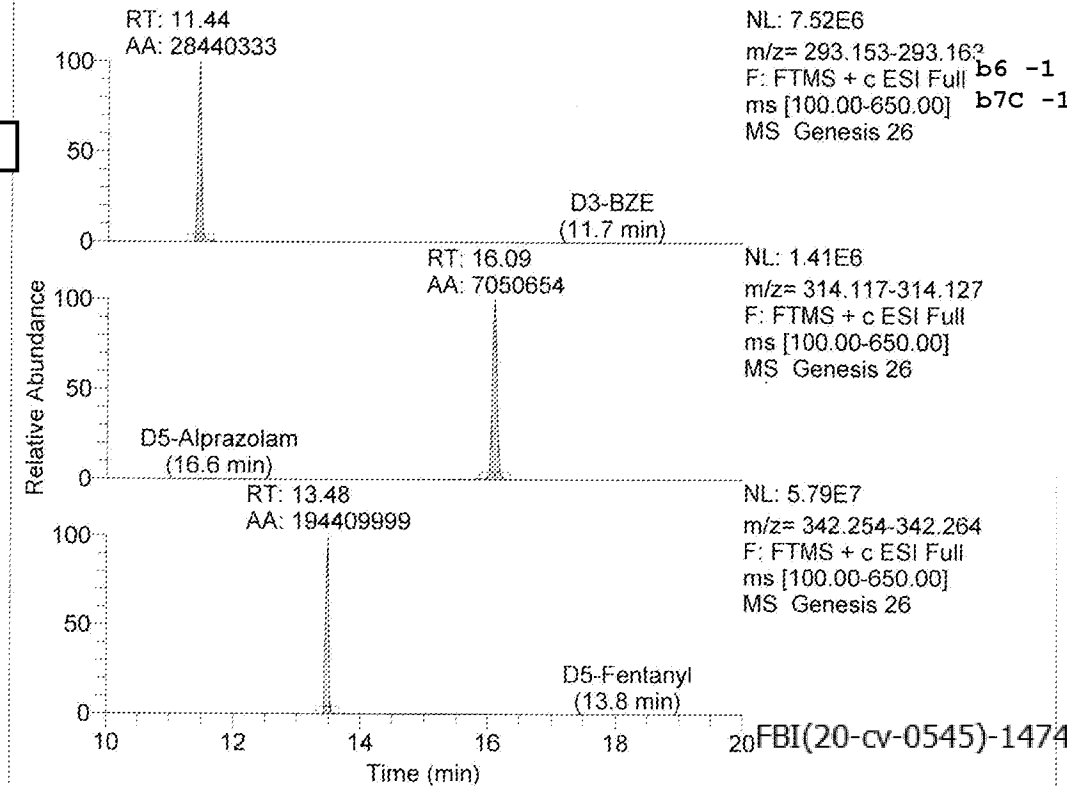
RT: 0.00 - 37.03



RT: 1.00 - 10.00



RT: 10.00 - 20.00



FBI(20-cv-0545)-1474

10/4/2017 1:34:10 AM

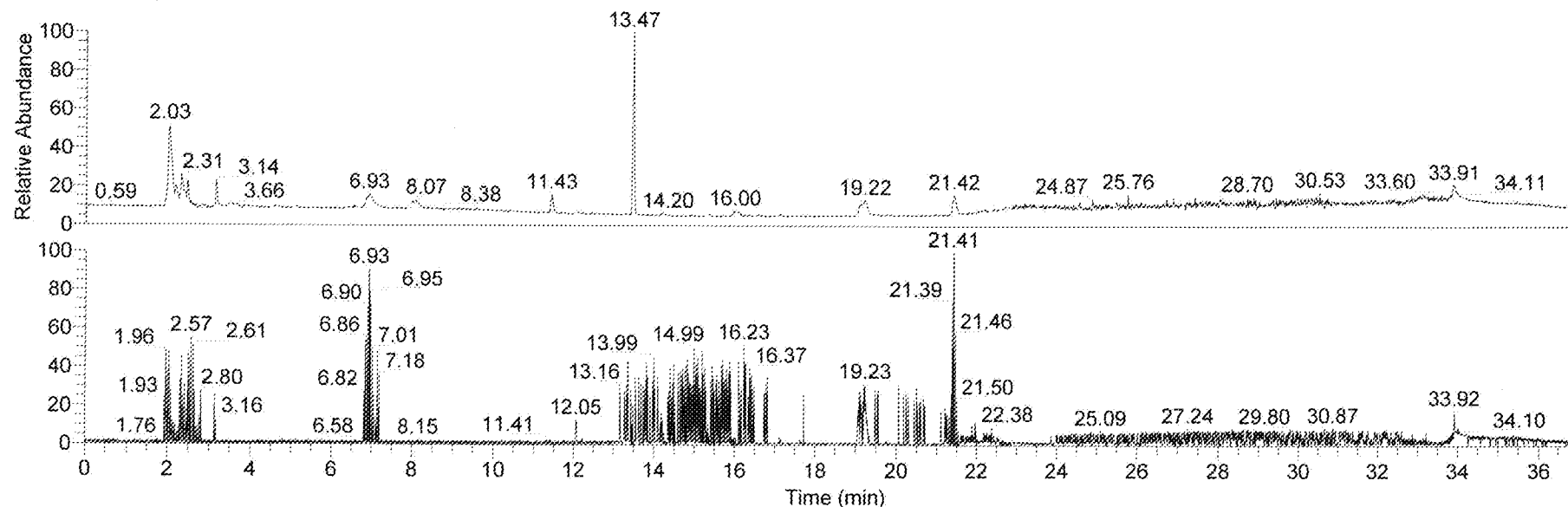
ncu

b6 -1

b7C -1

b7E -2

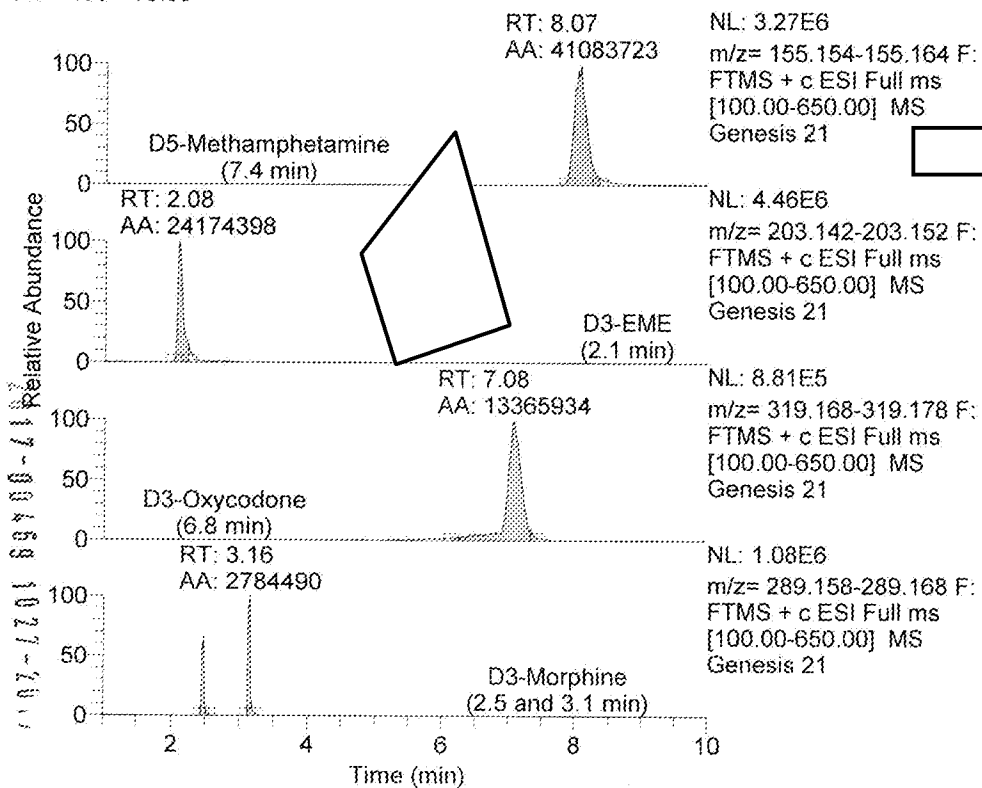
RT: 0.00 - 37.02



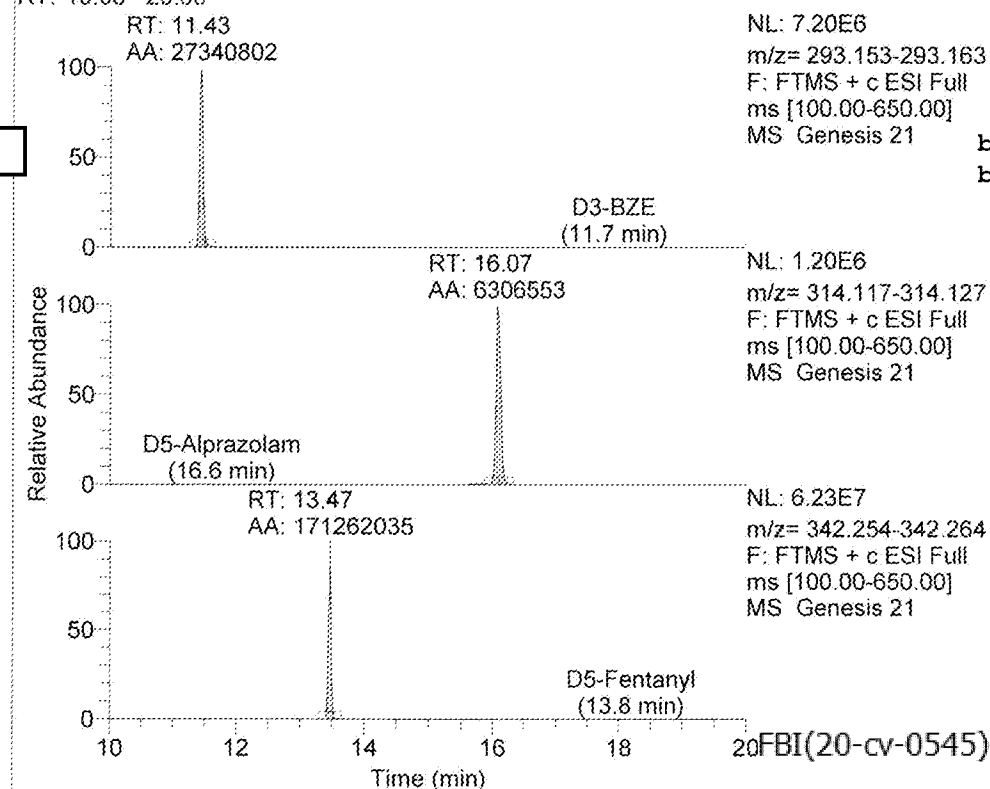
NL:  
9.09E7  
TIC F: FTMS +  
c ESI Full ms  
[100.00-650.00]  
MS 21

NL:  
2.04E5  
TIC F: ITMS +  
c ESI d Full  
ms2 MS 21

RT: 1.00 - 10.00



RT: 10.00 - 20.00



b6 -1

b7C -1

20FBI(20-cv-0545)-1475

10/4/2017 1:34:10 AM

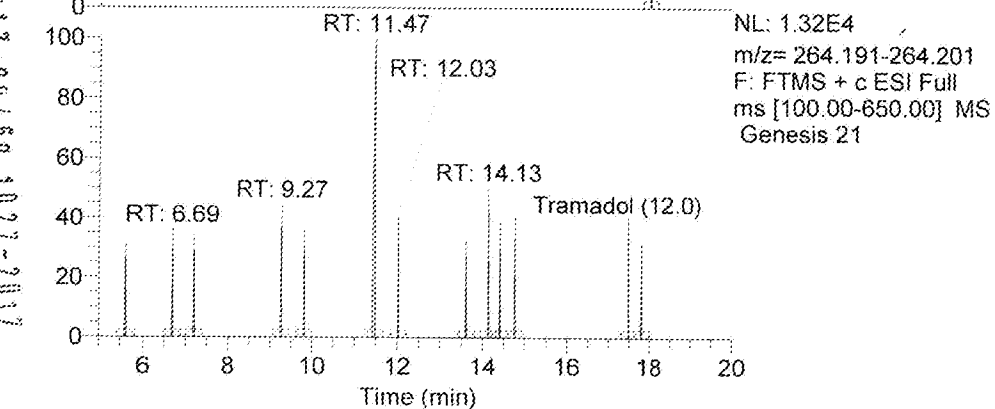
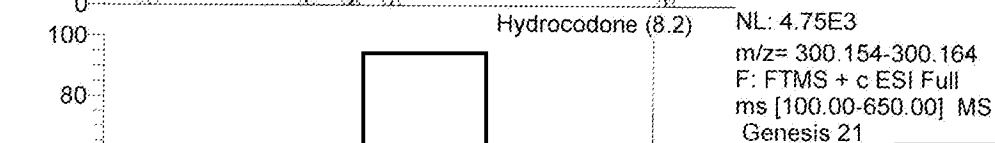
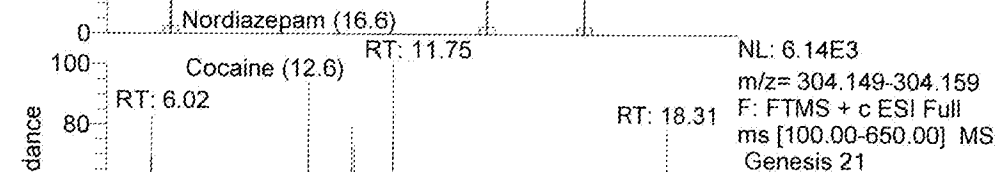
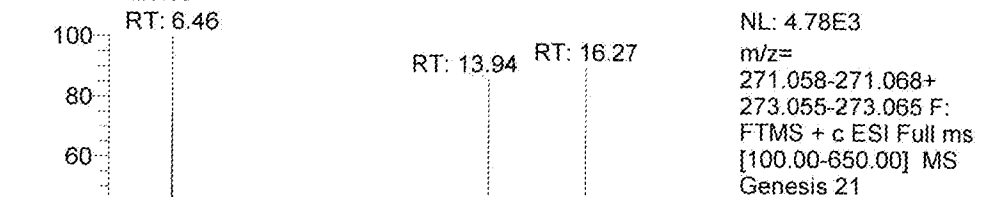
ncu

b6 -1

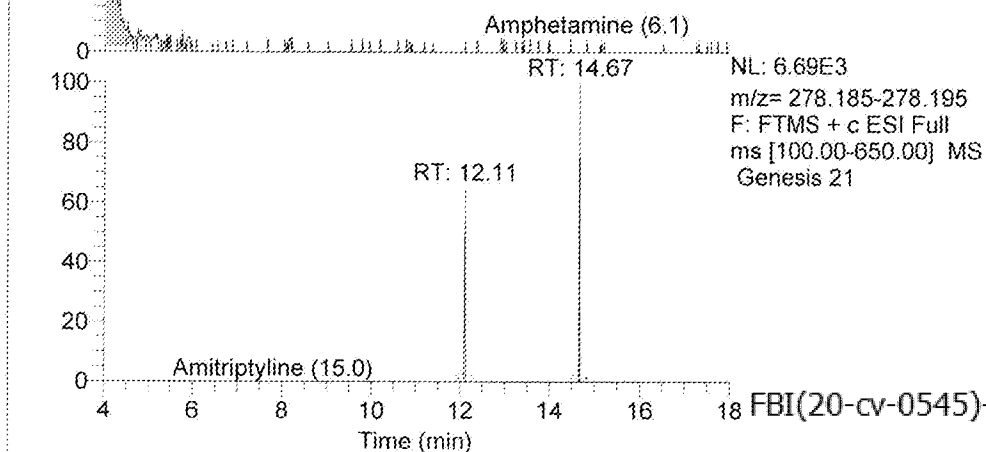
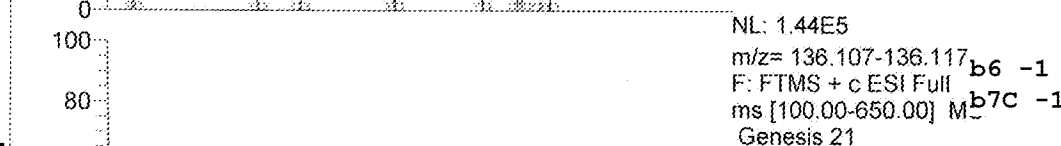
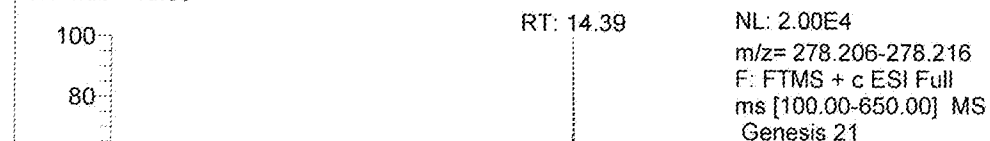
b7C -1

b7E -2

RT: 5.00 - 20.00



RT: 4.00 - 18.00



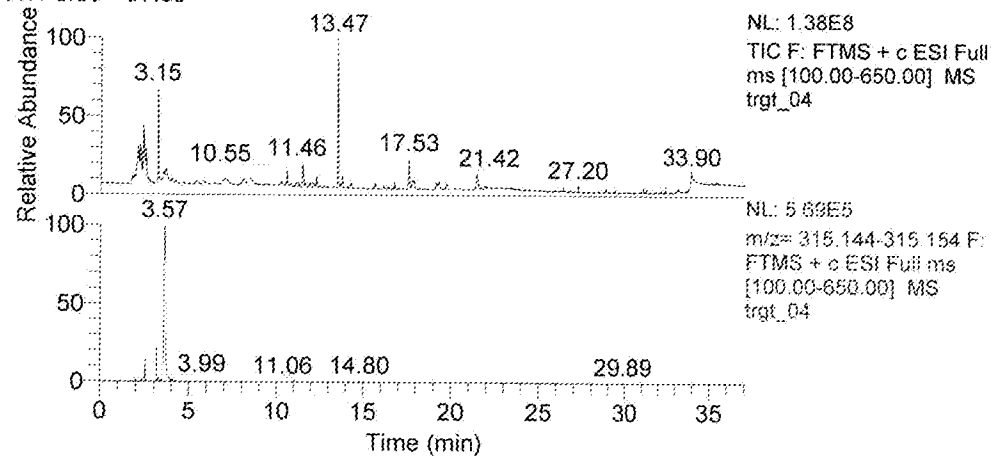
FBI(20-cv-0545)-1476

10/4/2017 7:44:42 PM  
ranitidine layout

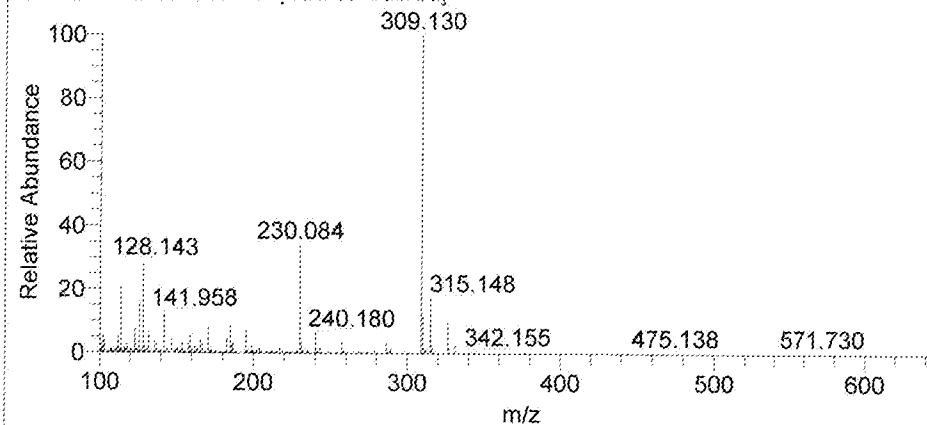
2017-00469, 1, blood

b6 -1  
b7C -1  
b7E -2

RT: 0.00 - 37.00



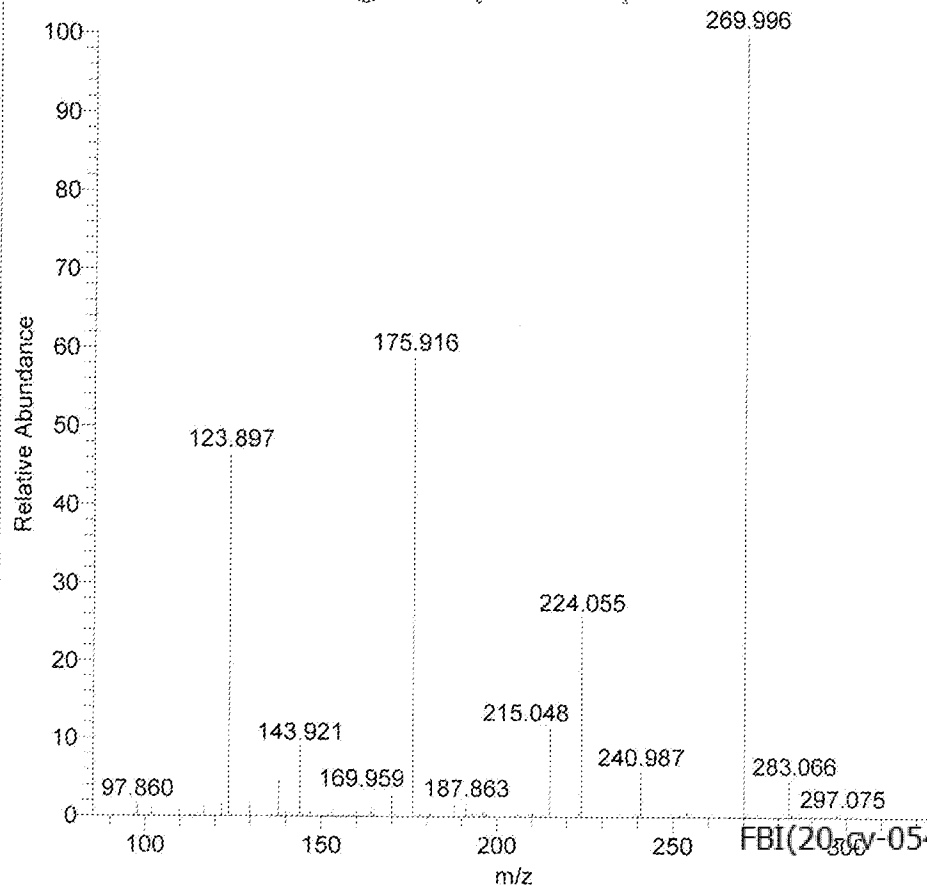
trgt\_04 #766 RT: 3.57 AV: 1 NL: 3.27E6  
F: FTMS + c ESI Full ms [100.00-650.00]



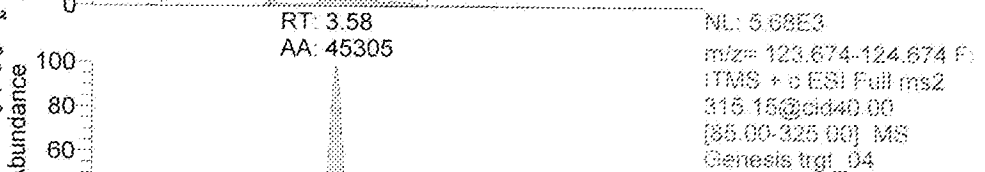
RT: 2.00 - 6.00 SM: 36



trgt\_04 #756-805 RT: 3.54-3.75 AV: 10 NL: 6.08E3  
F: ITMS + c ESI Full ms2 315.15@cid40.00 [85.00-325.00]



b6 -1  
b7C -1



107-7701-69100-1107

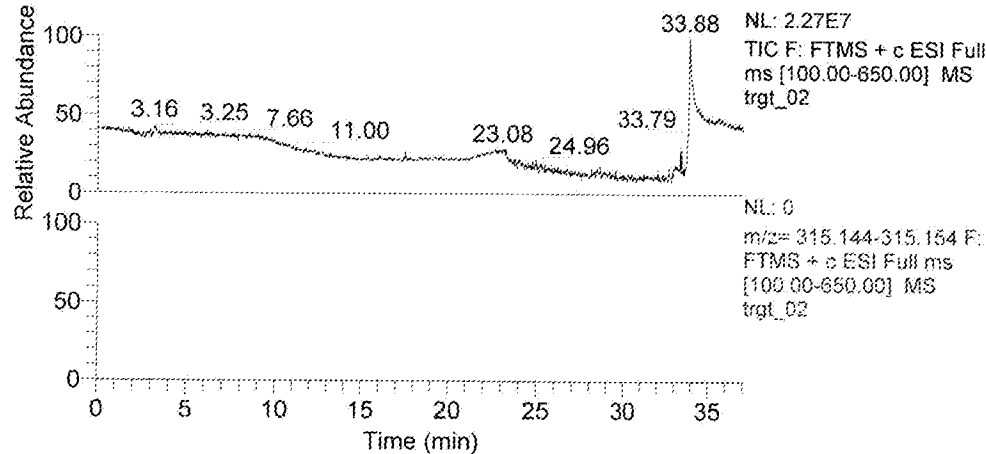
FBI(20-cv-0545)-1477

10/4/2017 6:29:26 PM  
ranitidine layout

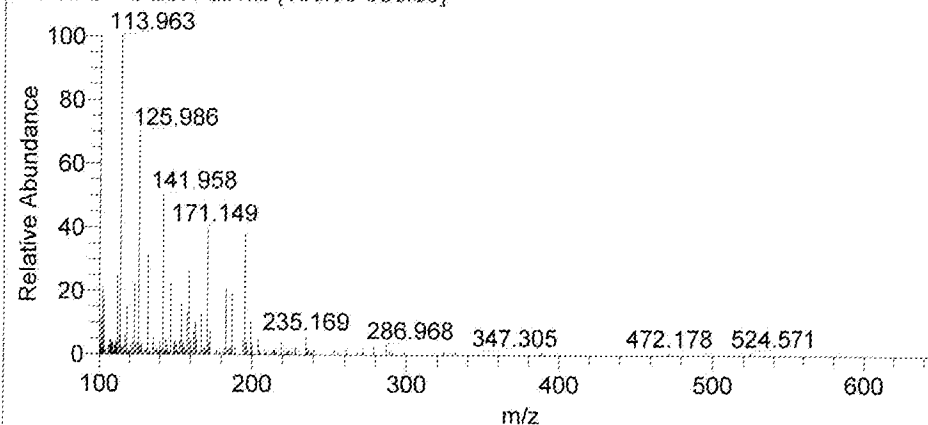
sb

b6 -1  
b7C -1  
b7E -2

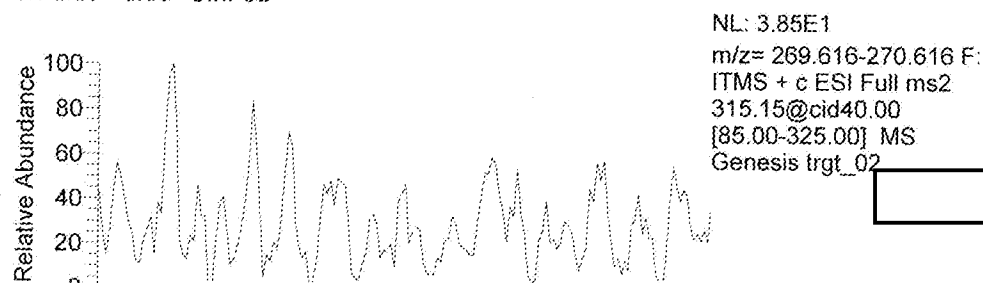
RT: 0.00 - 37.01



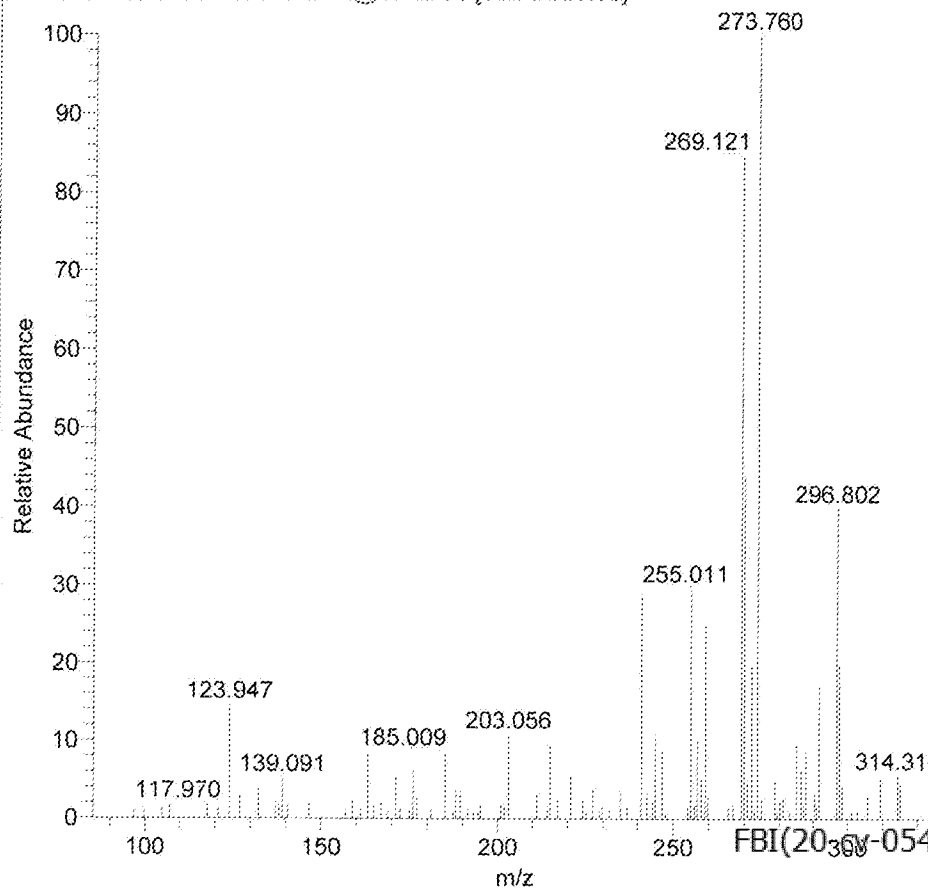
trgt\_02 #761 RT: 3.56 AV: 1 NL: 8.02E5  
F: FTMS + c ESI Full ms [100.00-650.00]



RT: 2.00 - 6.00 SM: 3B

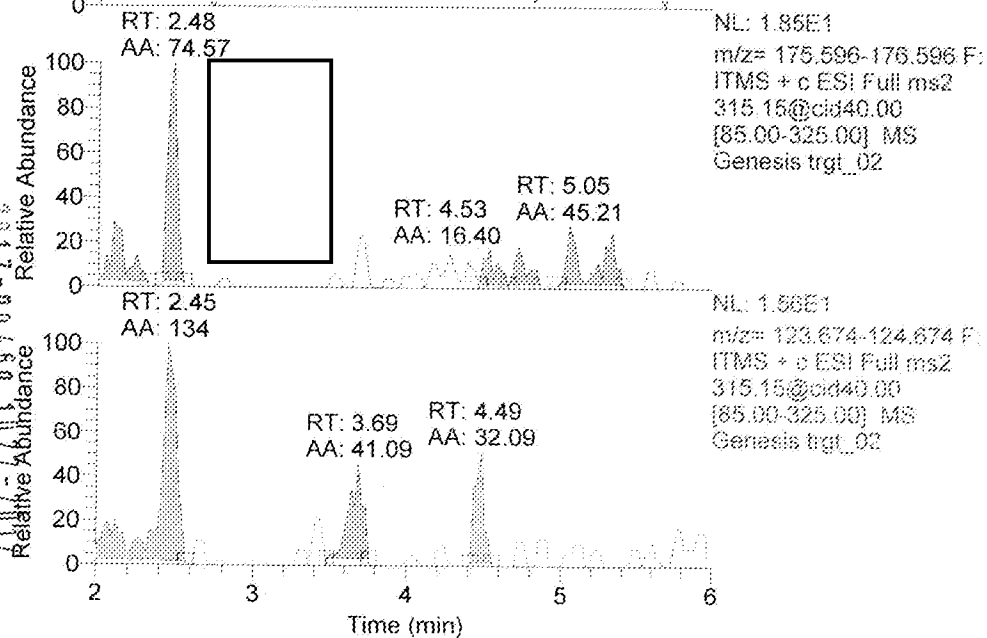


trgt\_02 #753-802 RT: 3.53-3.74 AV: 10 NL: 2.40E1  
F: ITMS + c ESI Full ms2 315.15@cid40.00 [85.00-325.00]



b6 -1  
b7C -1

107-1701-89700-1102



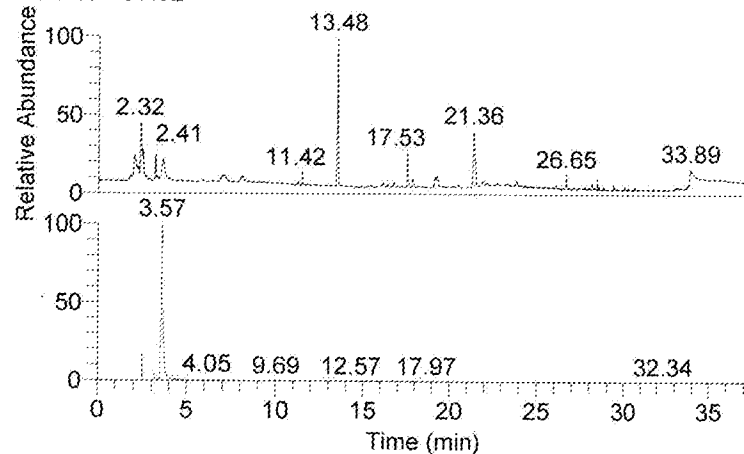
FBI(20-cv-0545)-1478

10/4/2017 8:59:58 PM  
ranitidine layout

2017-00469, 3, blood

b6 -1  
b7C -1  
b7E -2

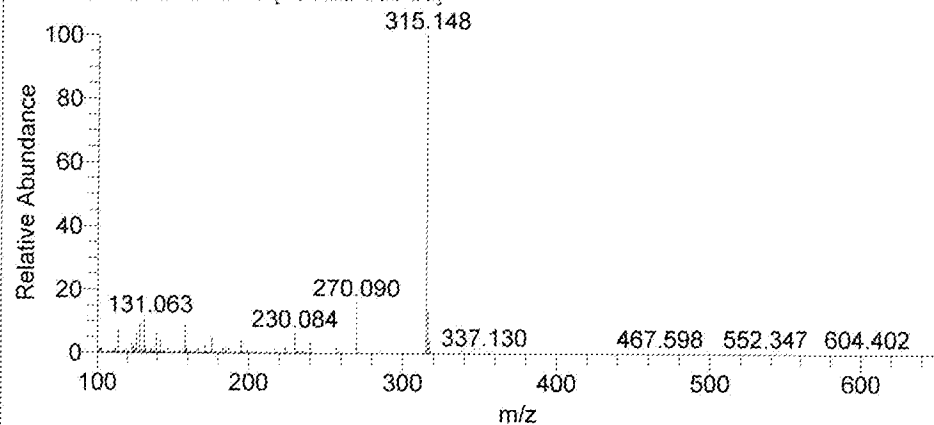
RT: 0.00 - 37.02



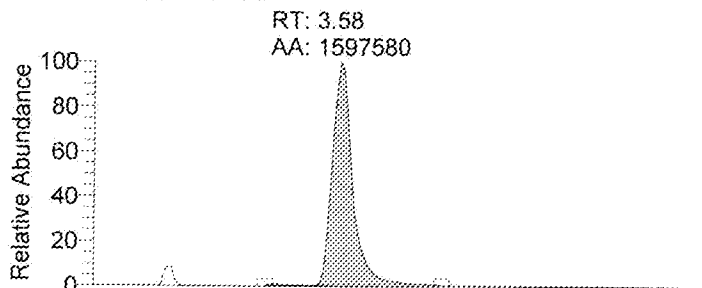
NL: 1.14E8  
TIC F: FTMS + c ESI Full  
ms [100.00-650.00] MS  
trgt\_06

NL: 8.18E6  
m/z= 315.144-315.154 F:  
FTMS + c ESI Full ms  
[100.00-650.00] MS  
trgt\_06

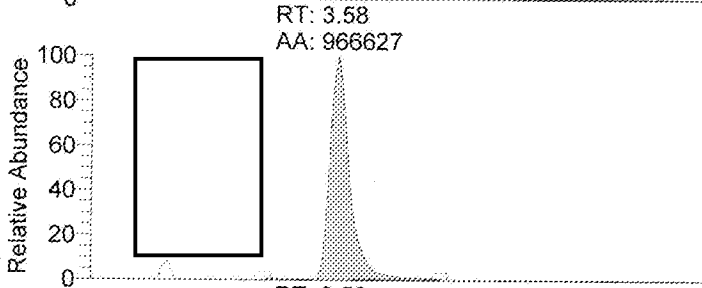
trgt\_06 #766 RT: 3.57 AV: 1 NL: 8.18E6  
F: FTMS + c ESI Full ms [100.00-650.00]



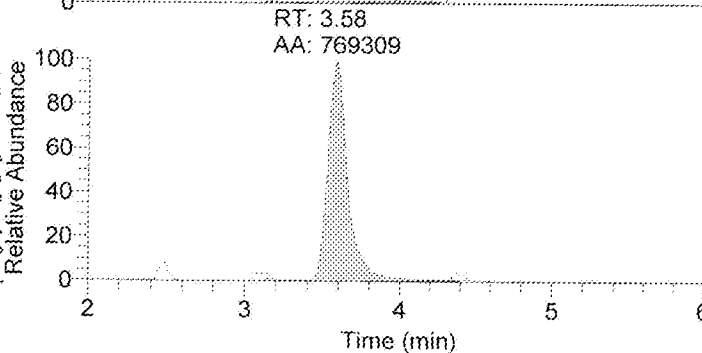
RT: 2.00 - 6.00 SM: 3B



NL: 1.70E5  
m/z= 269.616-270.616 F:  
ITMS + c ESI Full ms2  
315.15@cid40.00  
[85.00-325.00] MS  
Genesis trgt\_06

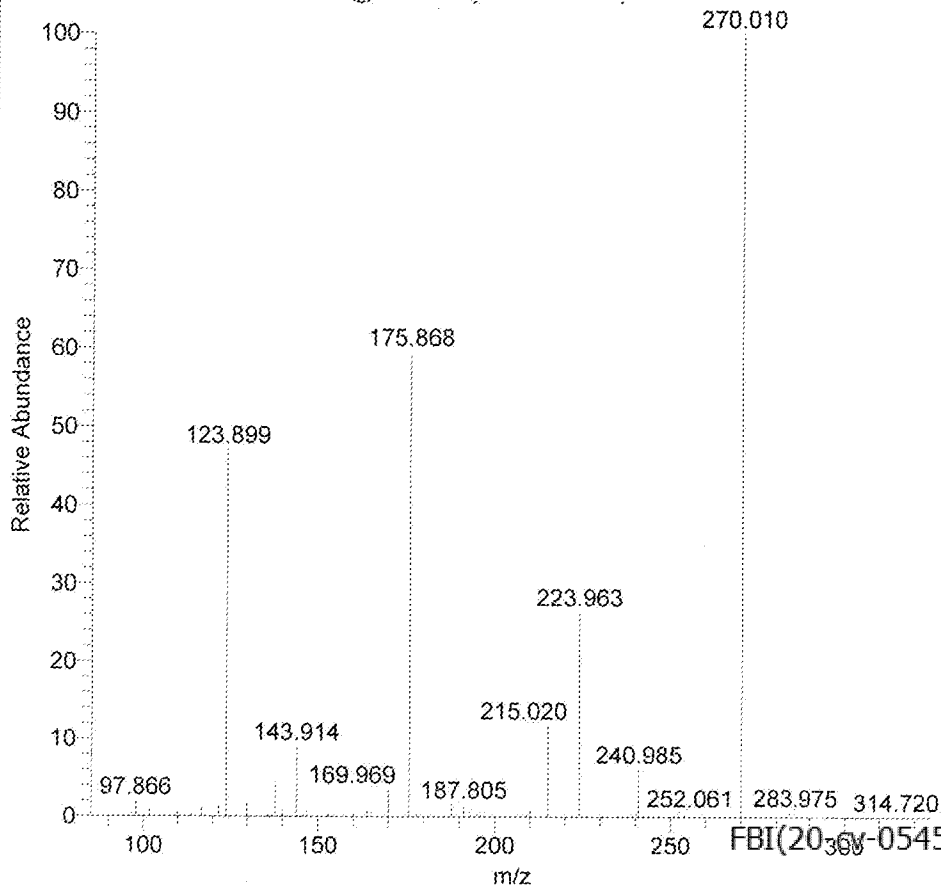


NL: 1.05E5  
m/z= 175.596-176.596 F:  
ITMS + c ESI Full ms2  
315.15@cid40.00  
[85.00-325.00] MS  
Genesis trgt\_06



NL: 8.41E4  
m/z= 123.674-124.674 F:  
ITMS + c ESI Full ms2  
315.15@cid40.00  
[85.00-325.00] MS  
Genesis trgt\_06

trgt\_06 #748-817 RT: 3.50-3.78 AV: 14 NL: 8.35E4  
F: ITMS + c ESI Full ms2 315.15@cid40.00 [85.00-325.00]



b6 -1  
b7C -1

1107-1701 69799-1107

FBI(20-cv-0545)-1479

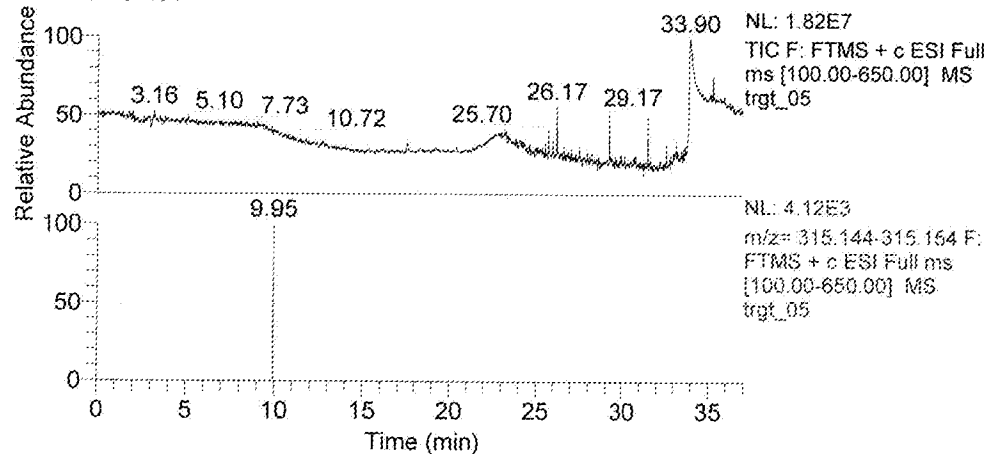
10/4/2017 8:22:20 PM

sb

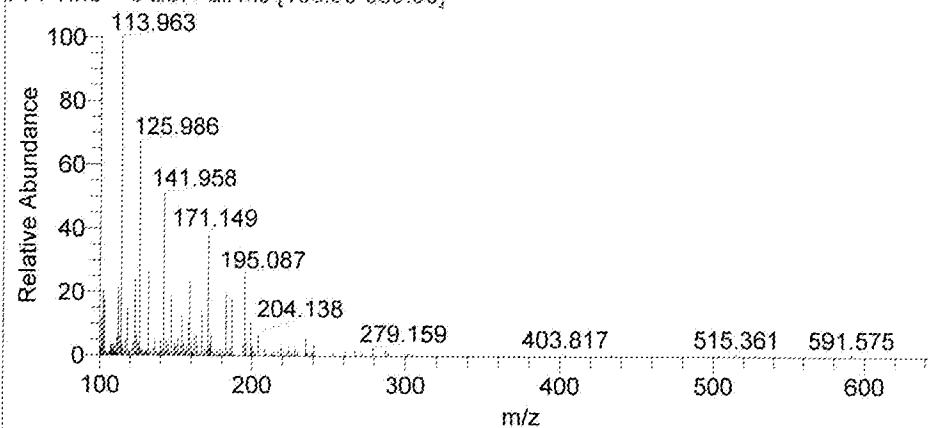
b6 -1  
b7C -1  
b7E -2

ranitidine layout

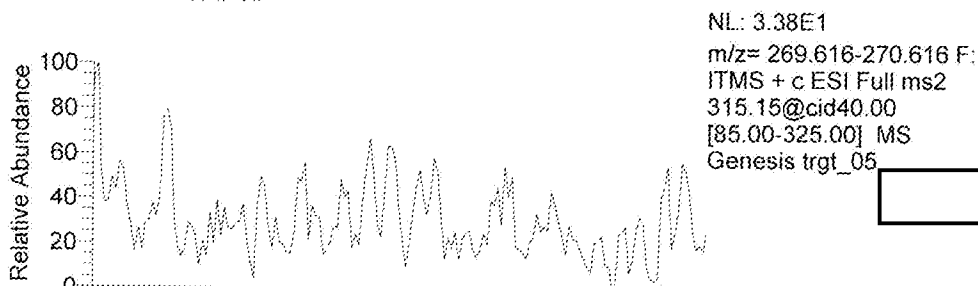
RT: 0.00 - 37.01



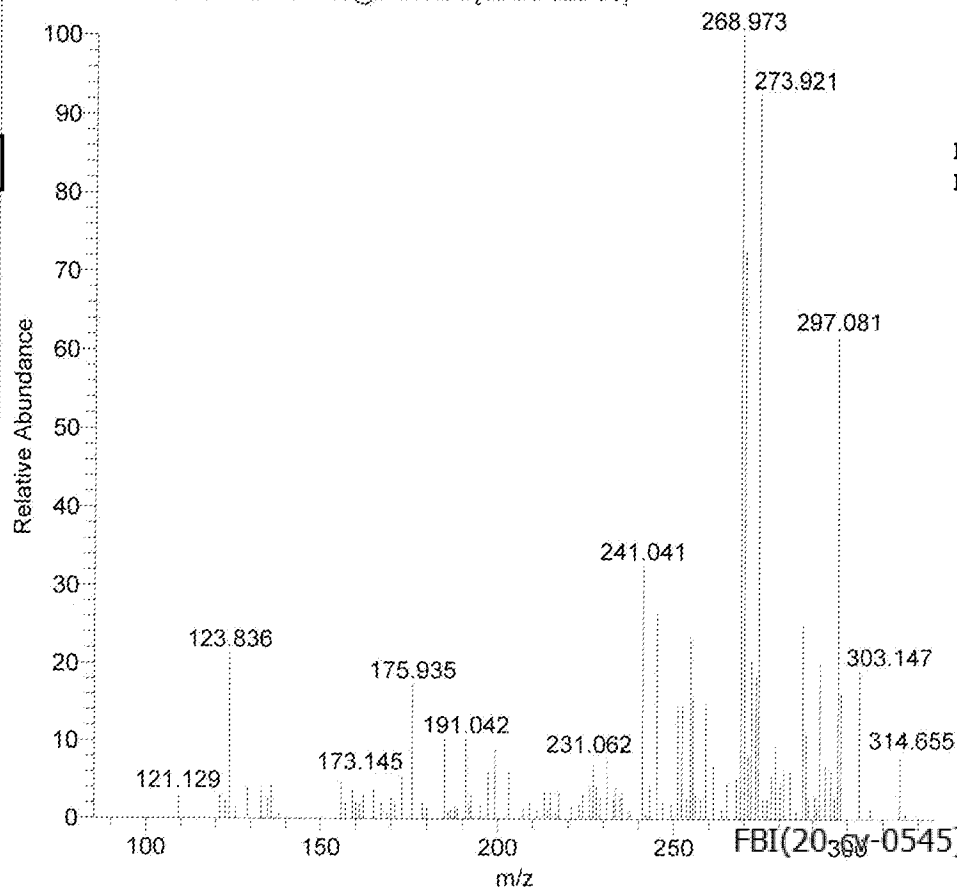
trgt\_05 #766 RT: 3.58 AV: 1 NL: 8.19E5  
F: FTMS + c ESI Full ms [100.00-650.00]



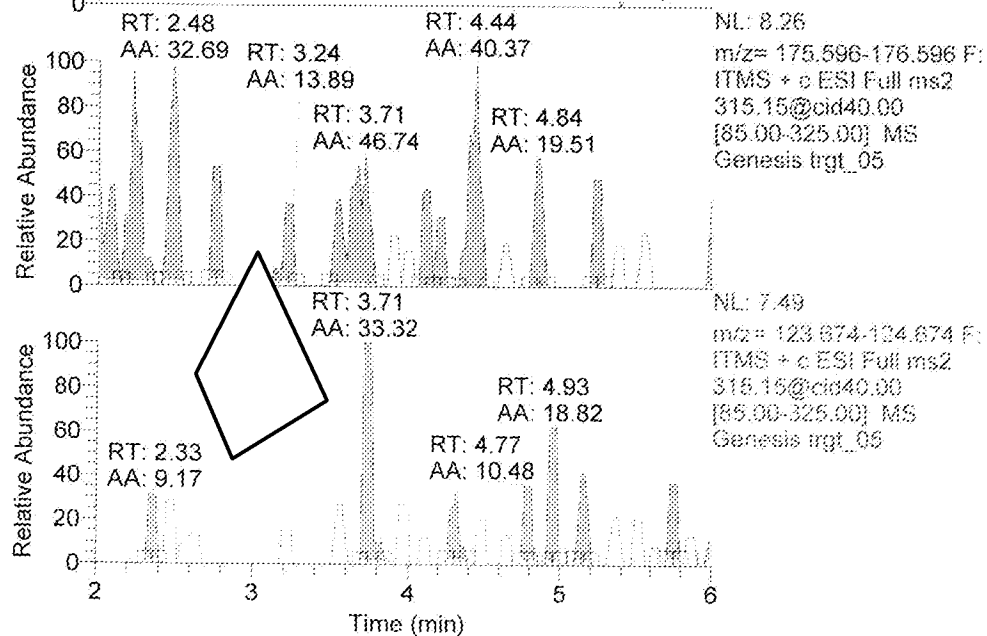
RT: 2.00 - 6.00 SM: 3B



trgt\_05 #747-812 RT: 3.50-3.78 AV: 13 NL: 1.57E1  
F: ITMS + c ESI Full ms2 315.15@cid40.00 [85.00-325.00]



b6 -1  
b7C -1



FBI(20-cv-0545)-1480

2017-10-04 08:22:20



10/4/2017 7:07:04 PM

ncb

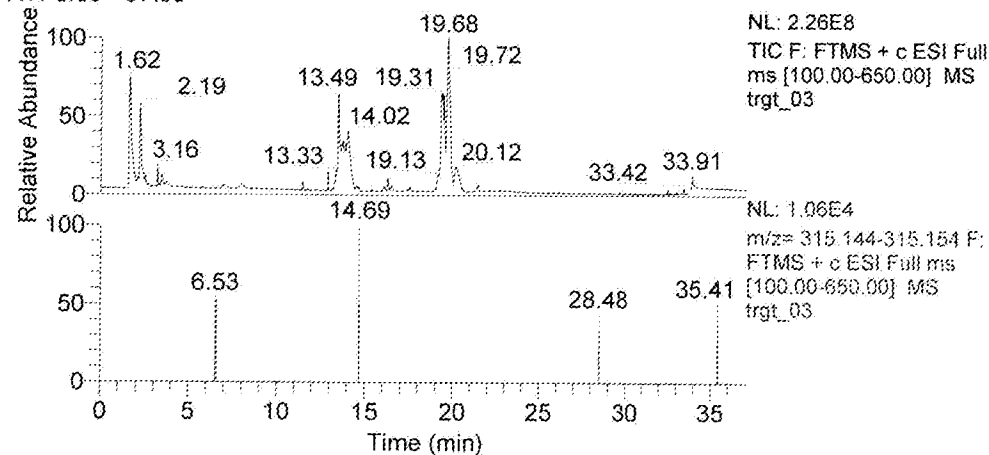
b6 -1

b7C -1

b7E -2

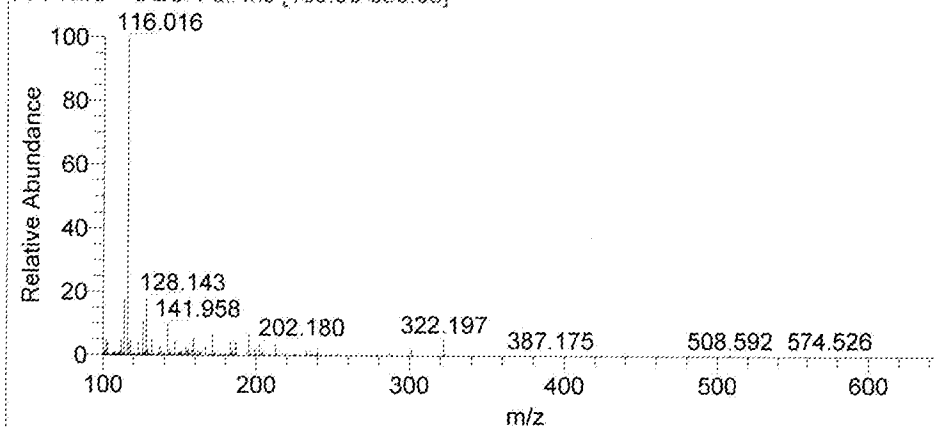
ranitidine layout

RT: 0.00 - 37.00

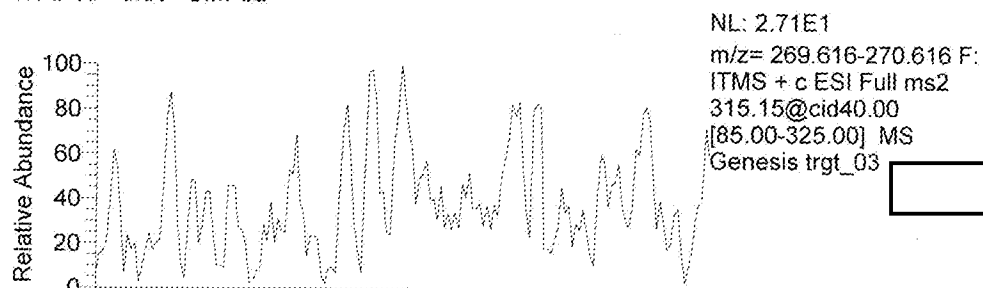


trgt\_03 #766 RT: 3.56 AV: 1 NL: 3.79E6

F: FTMS + c ESI Full ms [100.00-650.00]

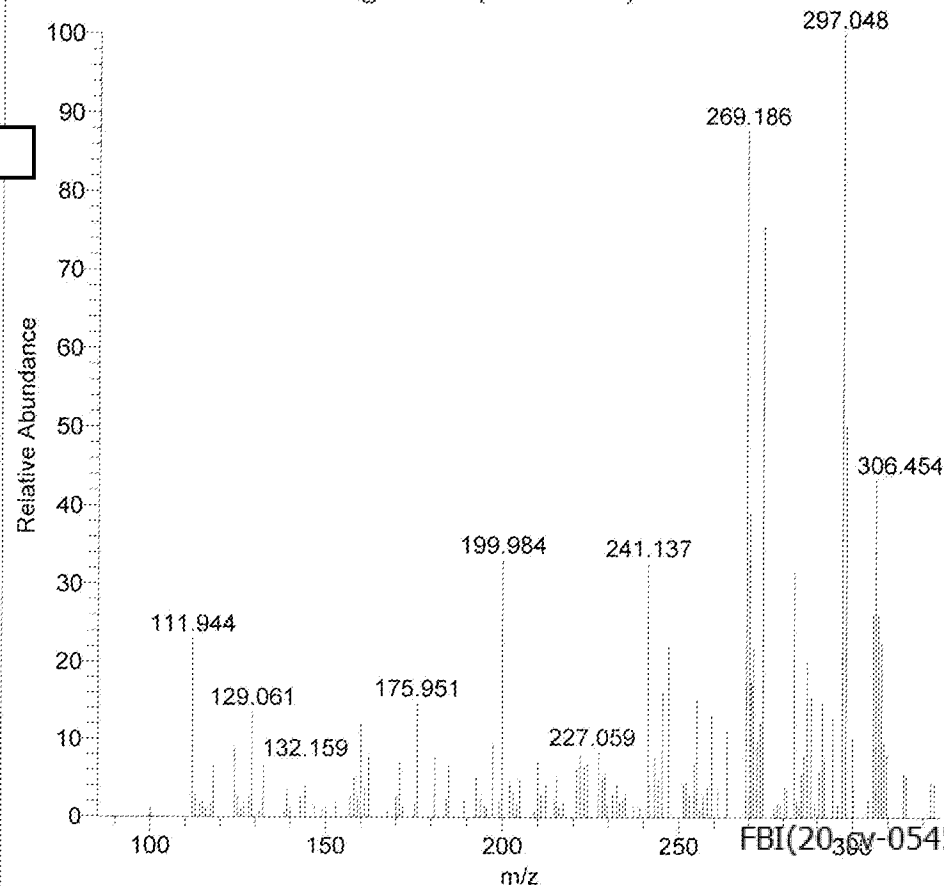


RT: 2.00 - 6.00 SM: 3B



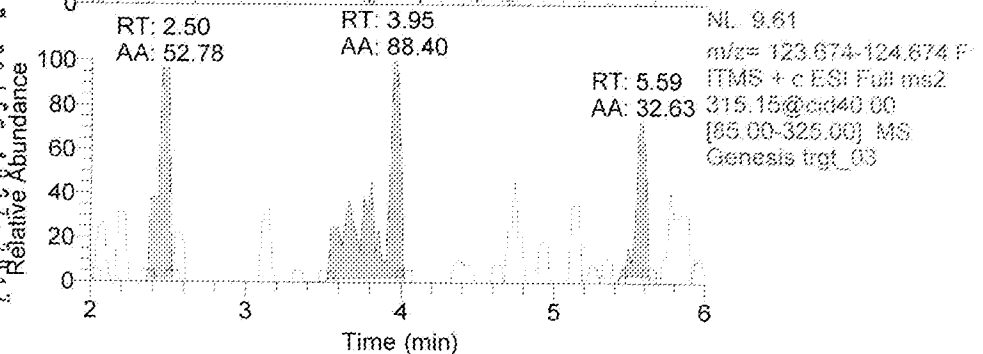
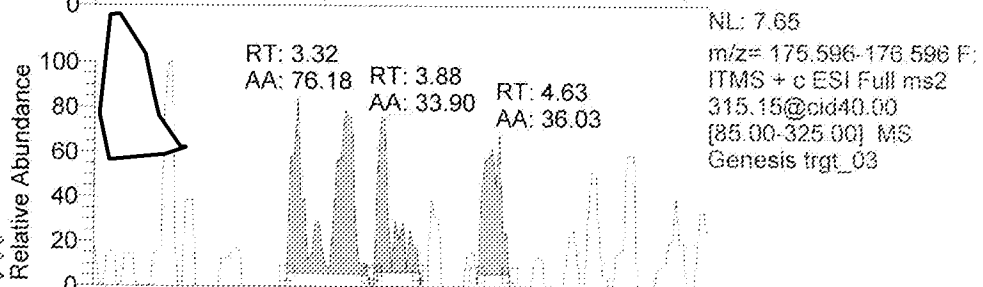
trgt\_03 #758-807 RT: 3.53-3.74 AV: 10 NL: 2.37E1

F: ITMS + c ESI Full ms2 315.15@cid40.00 [85.00-325.00]



b6 -1

b7C -1



107-1701-69700-1102

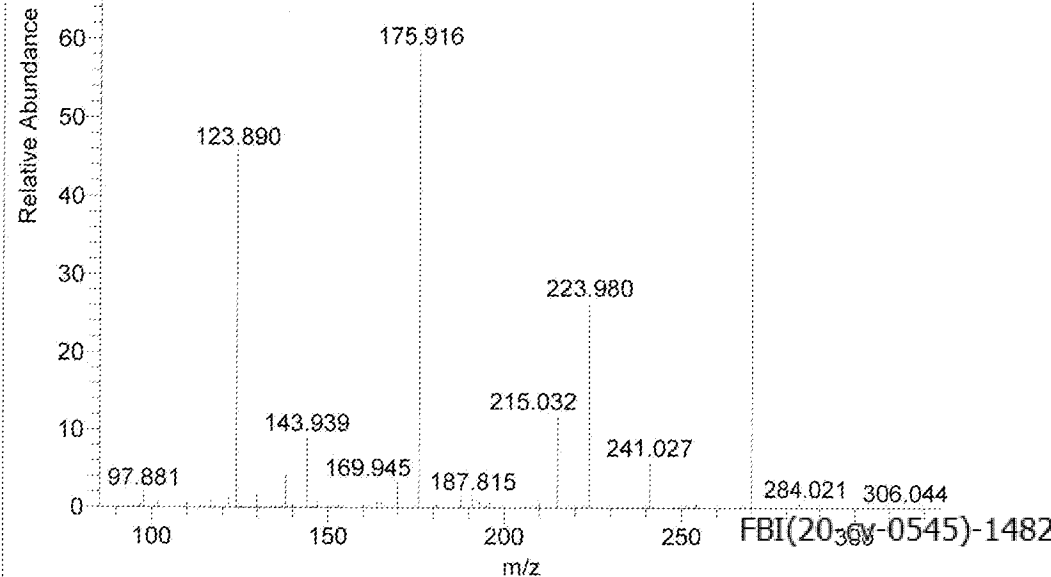
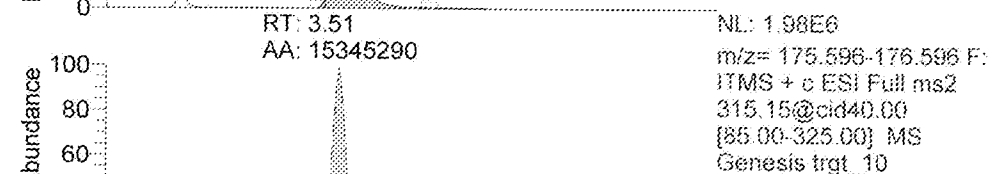
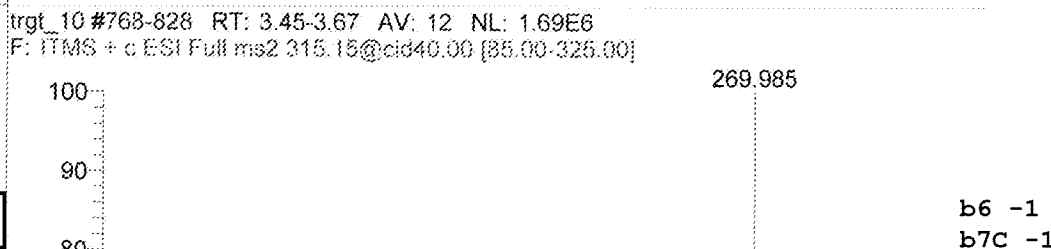
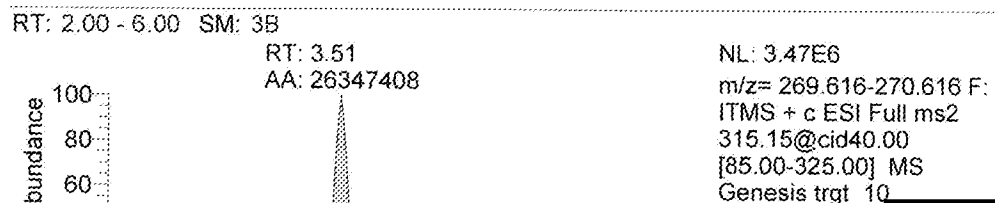
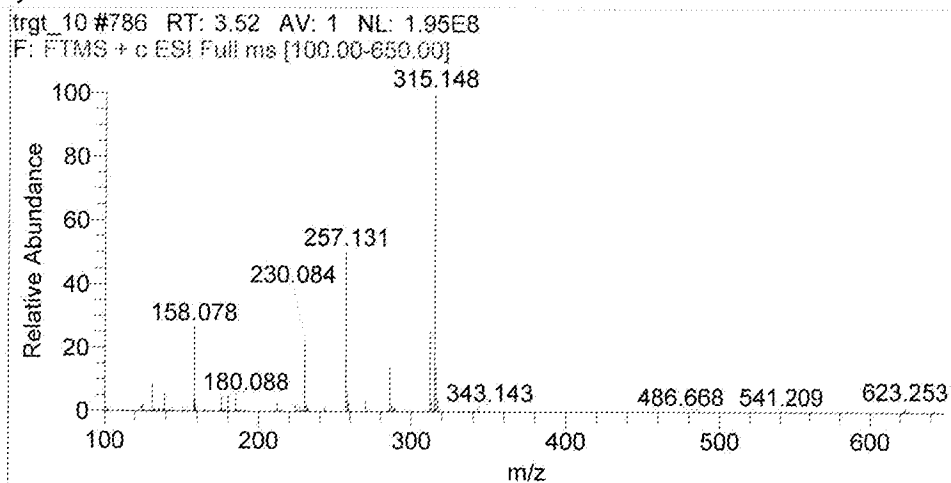
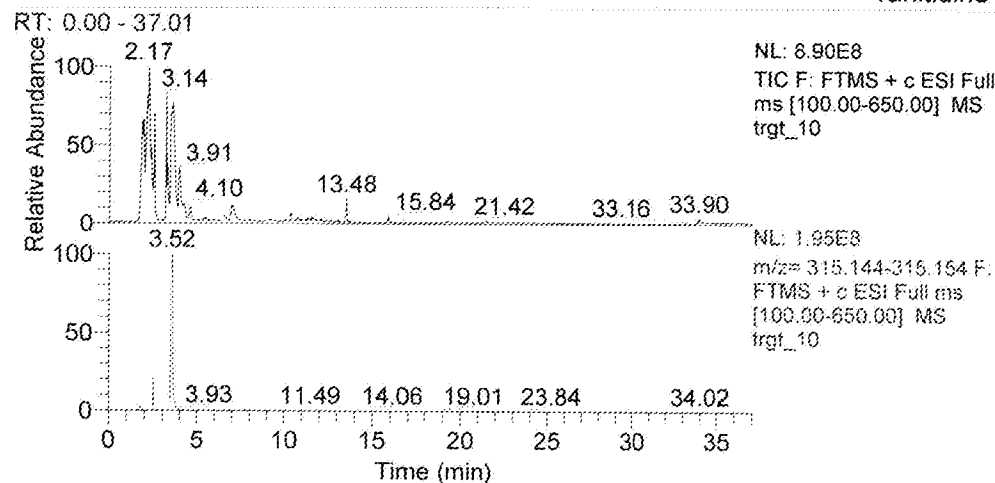
FBI(20-cv-0545)-1481

10/4/2017 11:30:29 PM

2017-00469, 2, urine

ranitidine layout

b6 -1  
b7C -1  
b7E -2



2017-00469-2107

10/4/2017 10:15:13 PM

sb

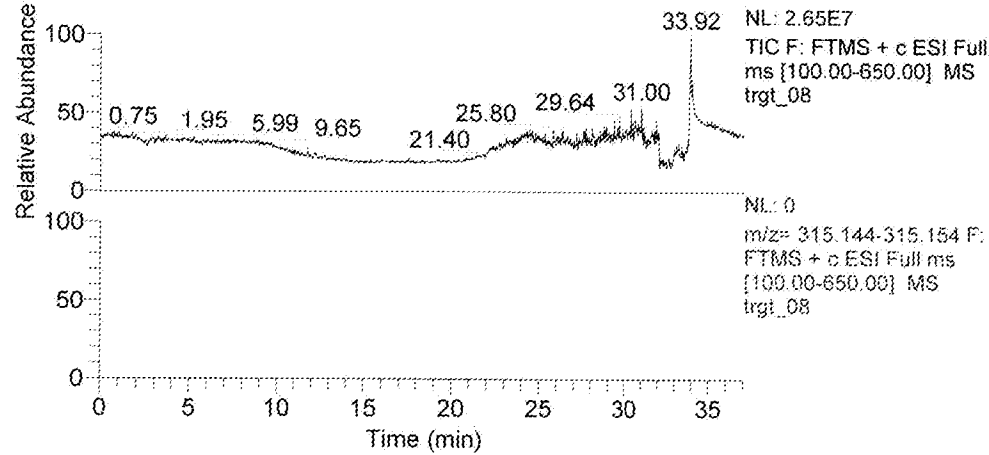
ranitidine layout

b6 -1

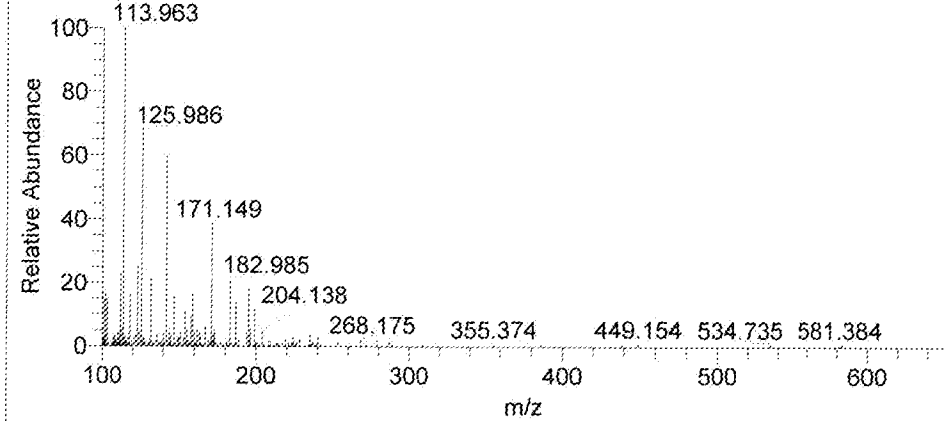
b7C -1

b7E -2

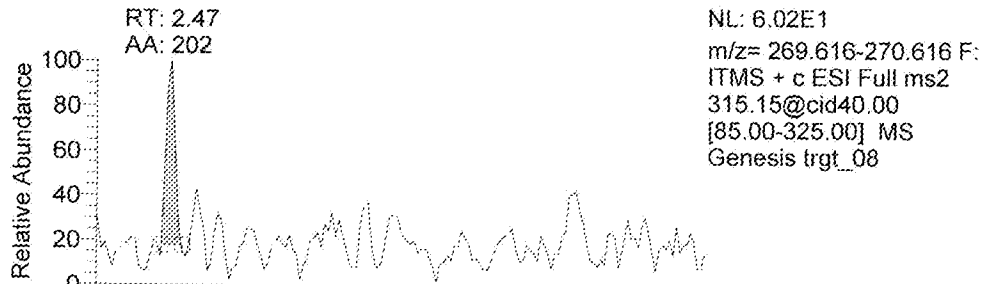
RT: 0.00 - 37.01



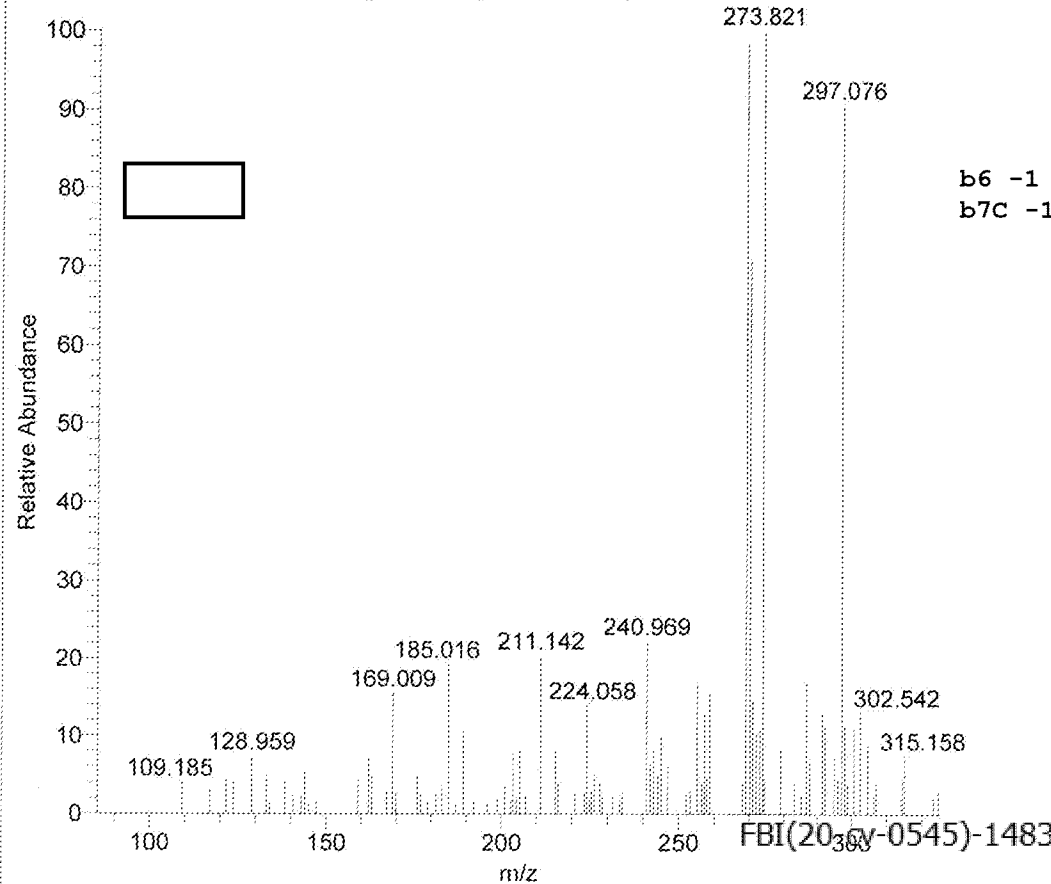
trgt\_08 #756 RT: 3.54 AV: 1 NL: 9.30E5  
F: FTMS + c ESI Full ms [100.00-650.00]



RT: 2.00 - 6.00 SM: 3B

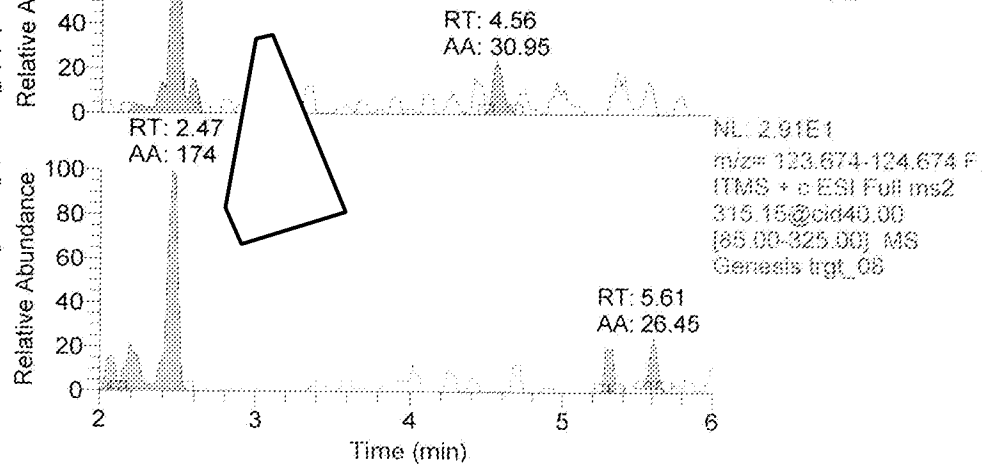
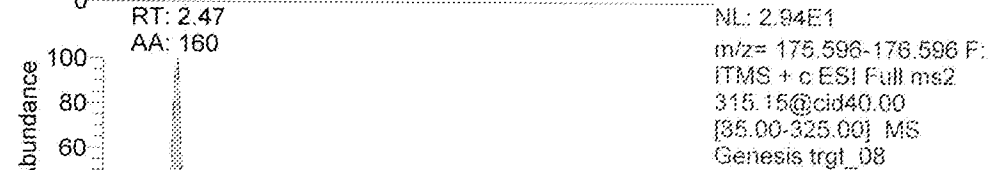


trgt\_08 #738-789 RT: 3.46-3.69 AV: 11 NL: 1.66E1  
F: ITMS + c ESI Full ms2 315.15@cid40.00 [85.00-325.00]



b6 -1

b7C -1



FBI(20-cv-0545)-1483

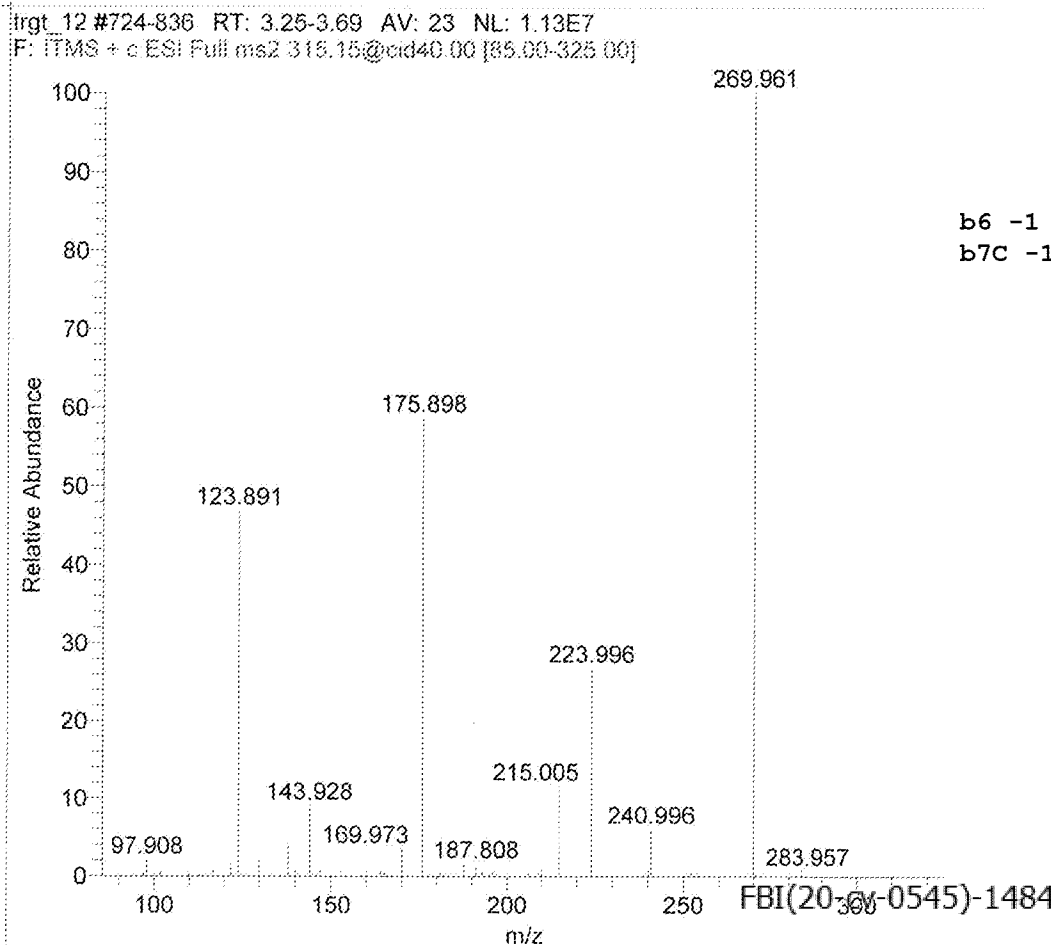
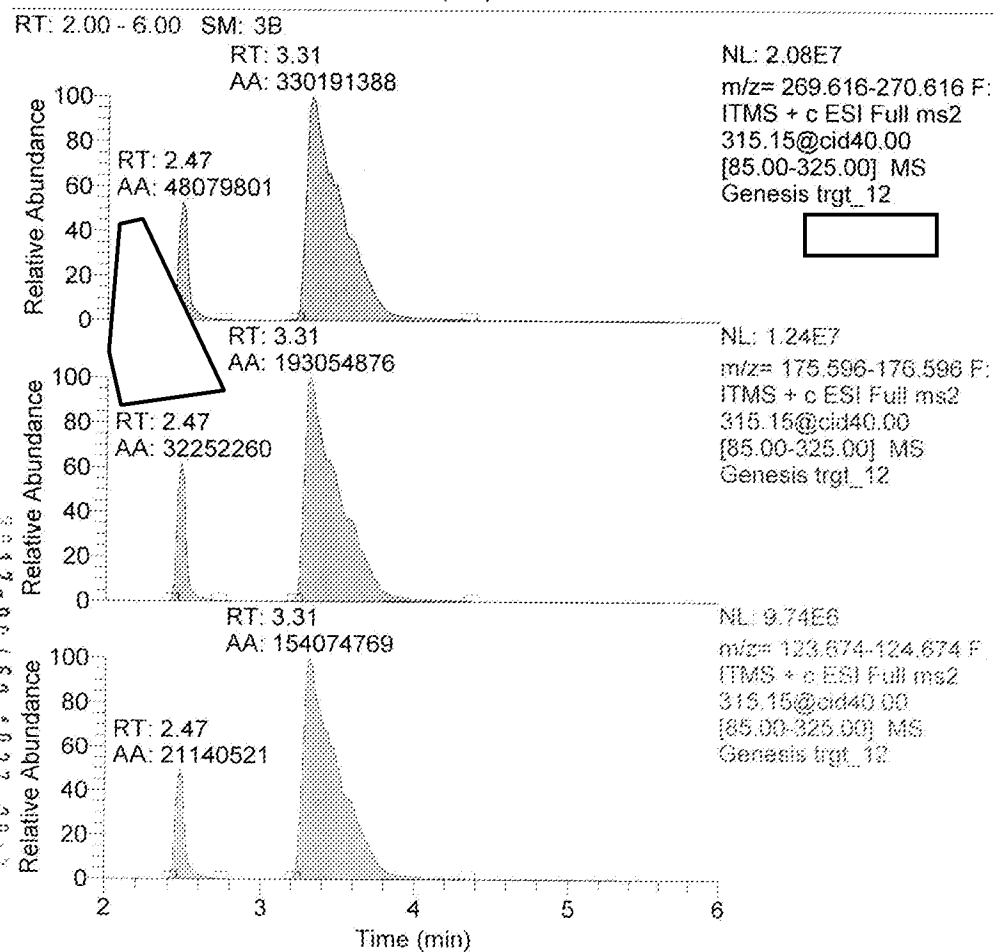
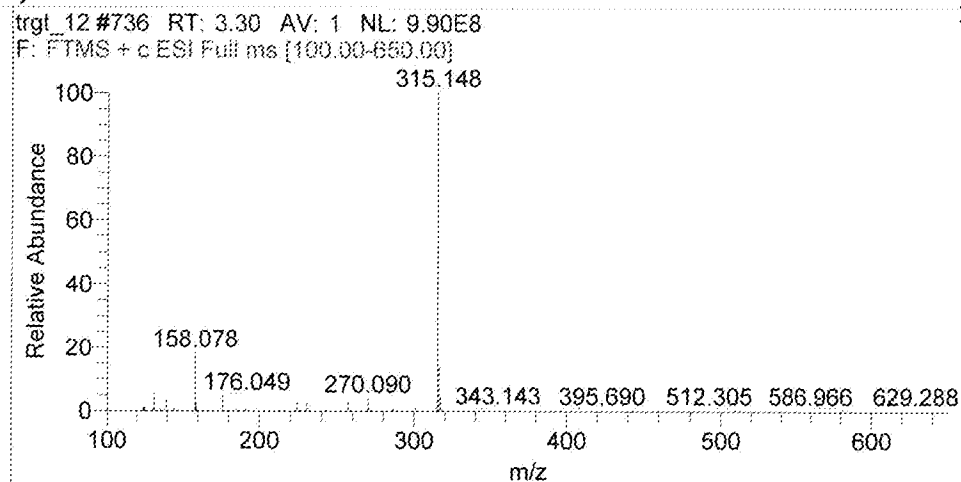
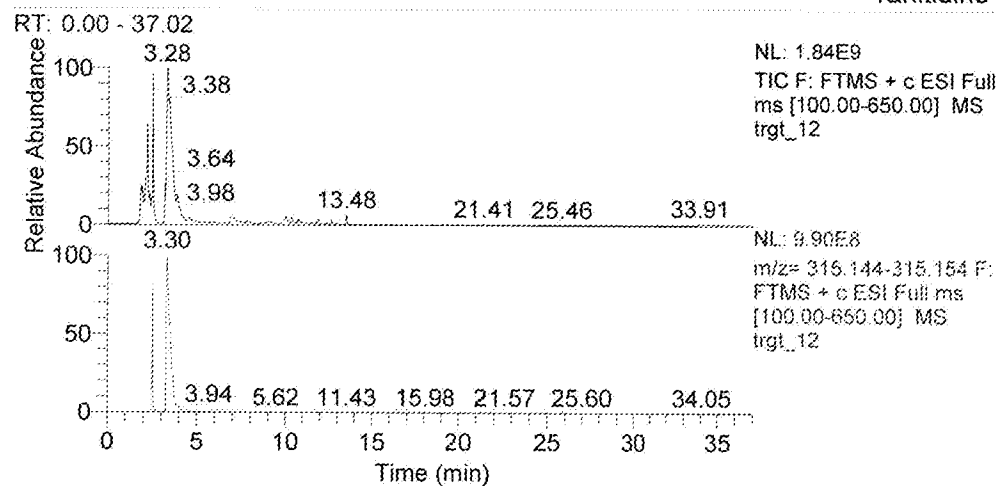
10/5/2017 12:45:43 AM  
ranitidine layout

2017-00469, 5, urine

b6 -1

b7C -1

b7E -2



10/5/2017 12:08:05 AM

sb

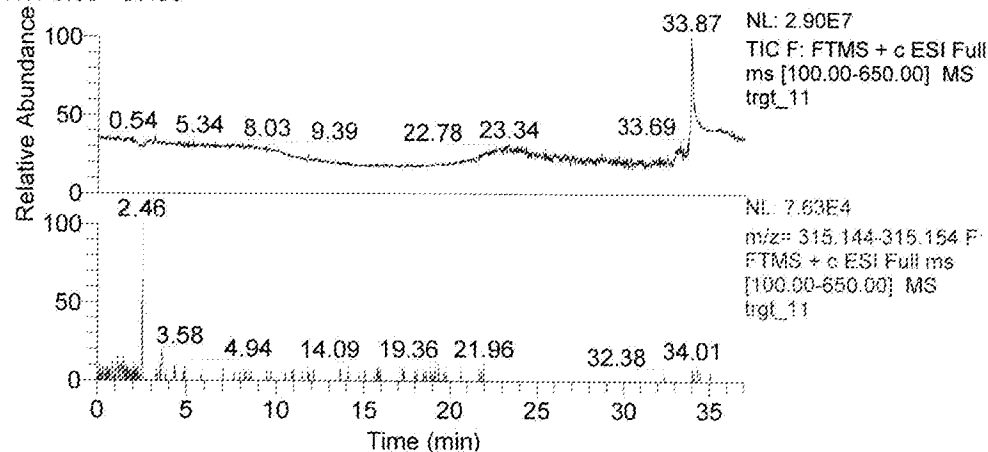
b6 -1

b7C -1

b7E -2

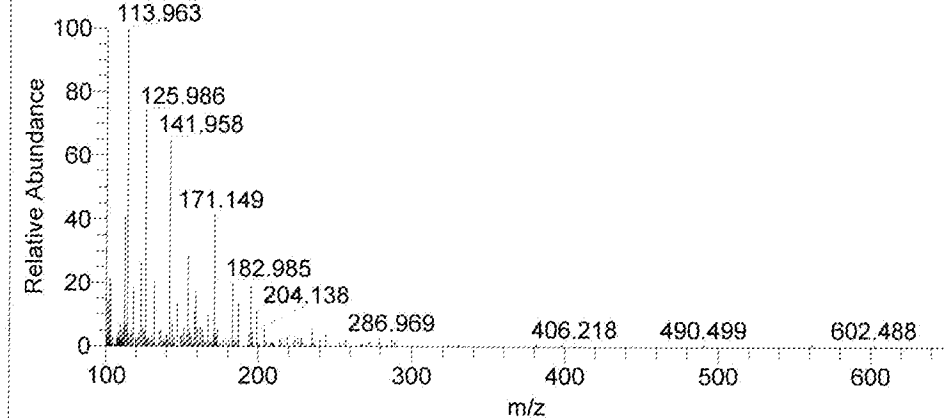
ranitidine layout

RT: 0.00 - 37.00

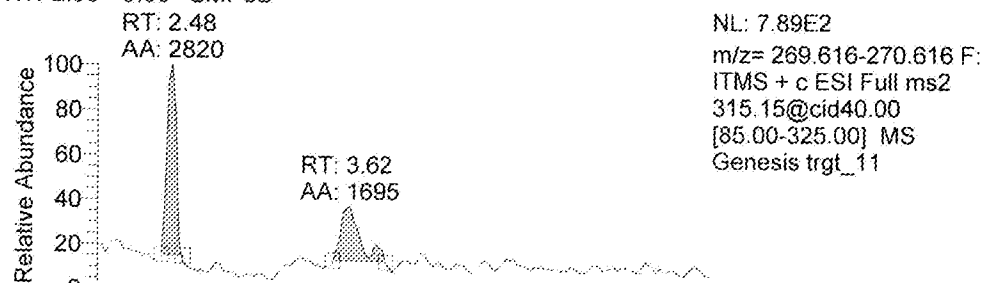


trgt\_11 #706 RT: 3.30 AV: 1 NL: 8.21E5

F: FTMS + c ESI Full ms [100.00-650.00]

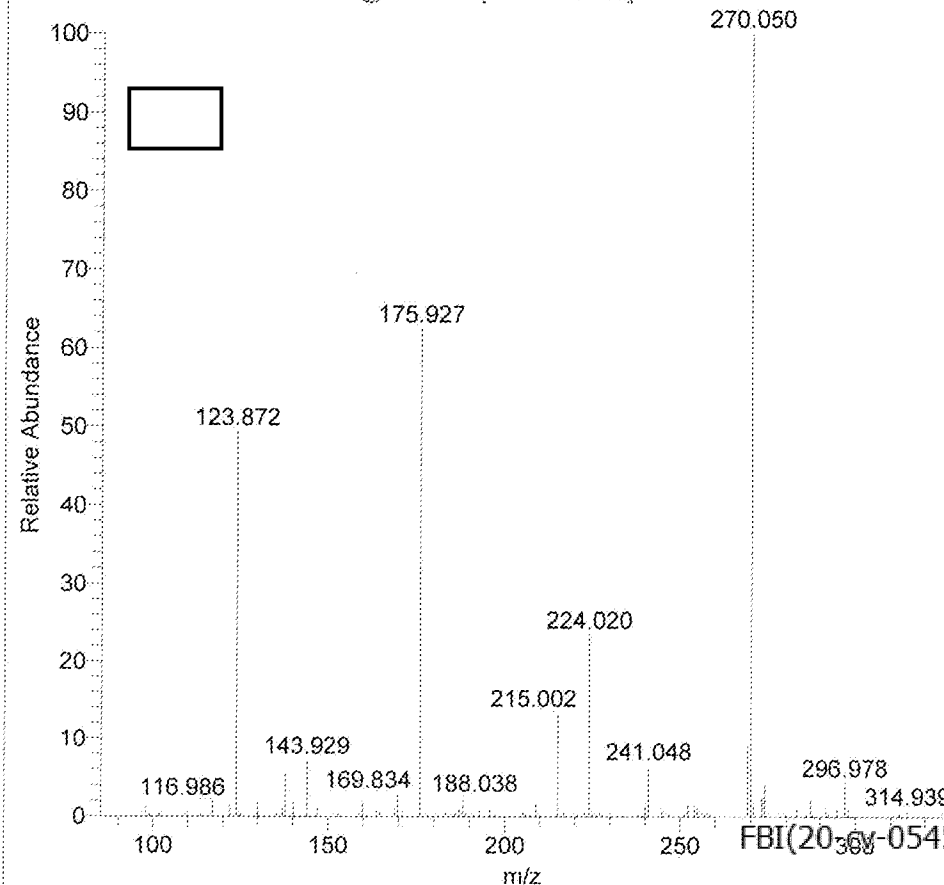


RT: 2.00 - 6.00 SM: 3B



trgt\_11 #759-787 RT: 3.55-3.67 AV: 6 NL: 2.53E2

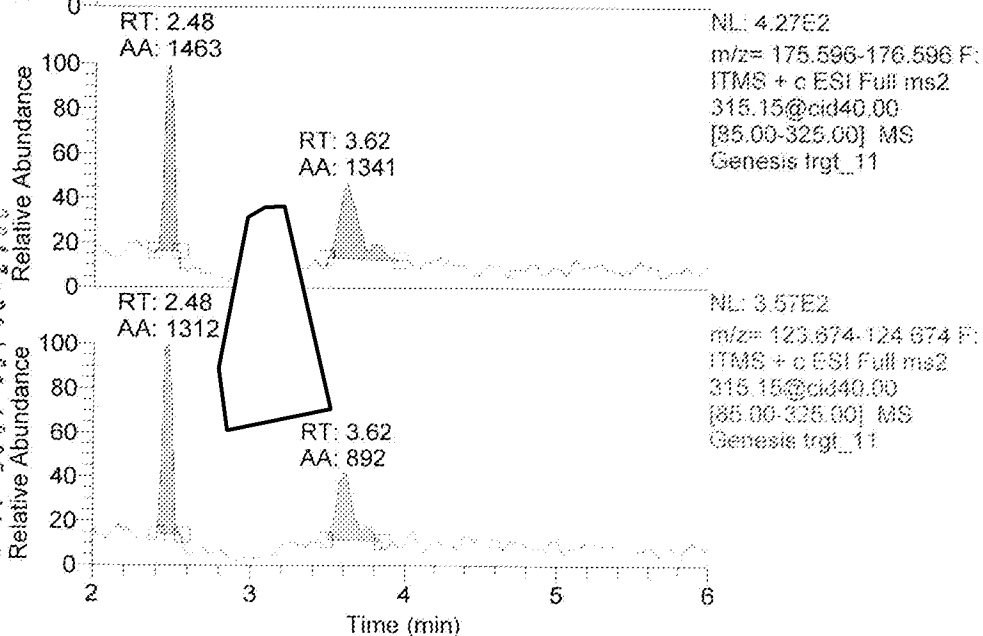
F: ITMS + c ESI Full ms2 315.15@cid40.00 [85.00-325.00]



b6 -1

b7C -1

107-1701-69700-7102



FBI(20-cv-0545)-1485

10/4/2017 10:52:51 PM

ncu

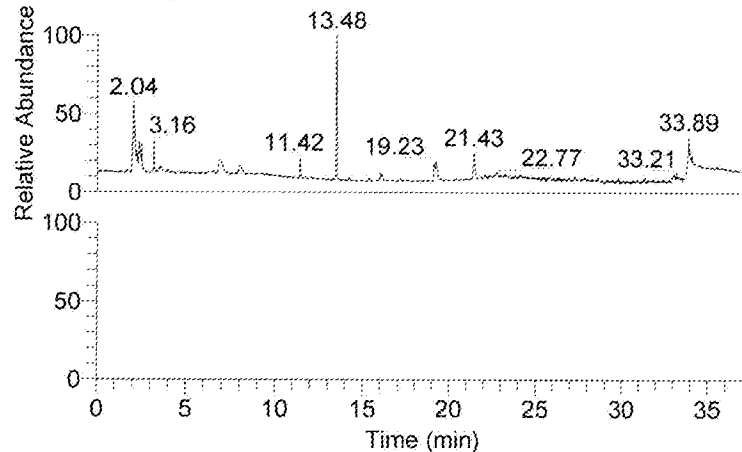
b6 -1

b7C -1

b7E -2

ranitidine layout

RT: 0.00 - 37.02

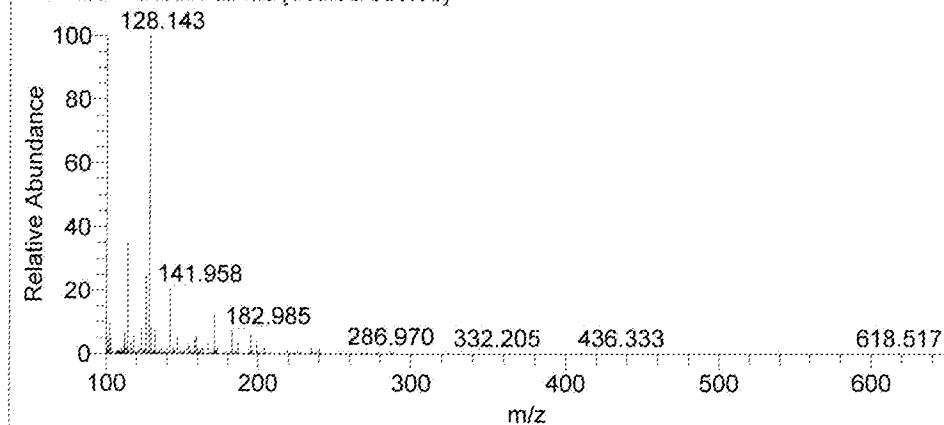


NL: 7.01E7  
TIC F: FTMS + c ESI Full  
ms [100.00-650.00] MS  
trgt\_09

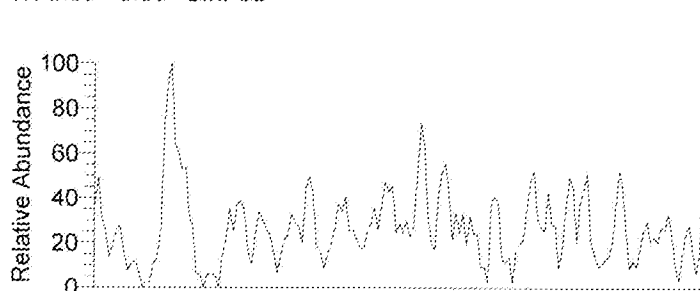
NL: 0  
m/z: 315.144-315.154 F:  
FTMS + c ESI Full ms  
[100.00-650.00] MS  
trgt\_09

trgt\_09 #756 RT: 3.53 AV: 1 NL: 2.52E6

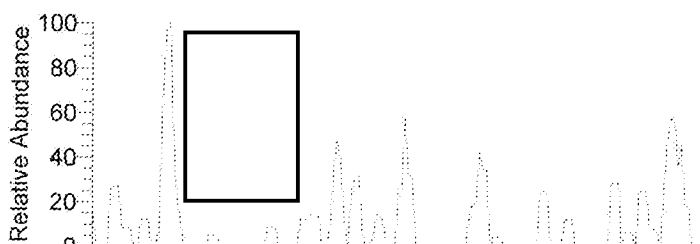
F: FTMS + c ESI Full ms [100.00-650.00]



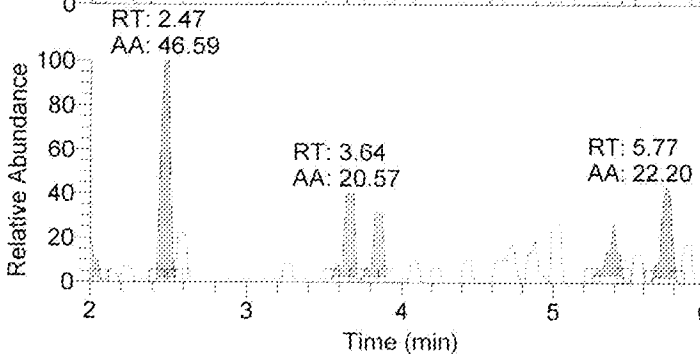
RT: 2.00 - 6.00 SM: 36



NL: 3.68E1  
m/z: 269.616-270.616 F:  
ITMS + c ESI Full ms2  
315.15@cid40.00  
[85.00-325.00] MS  
Genesis trgt\_09



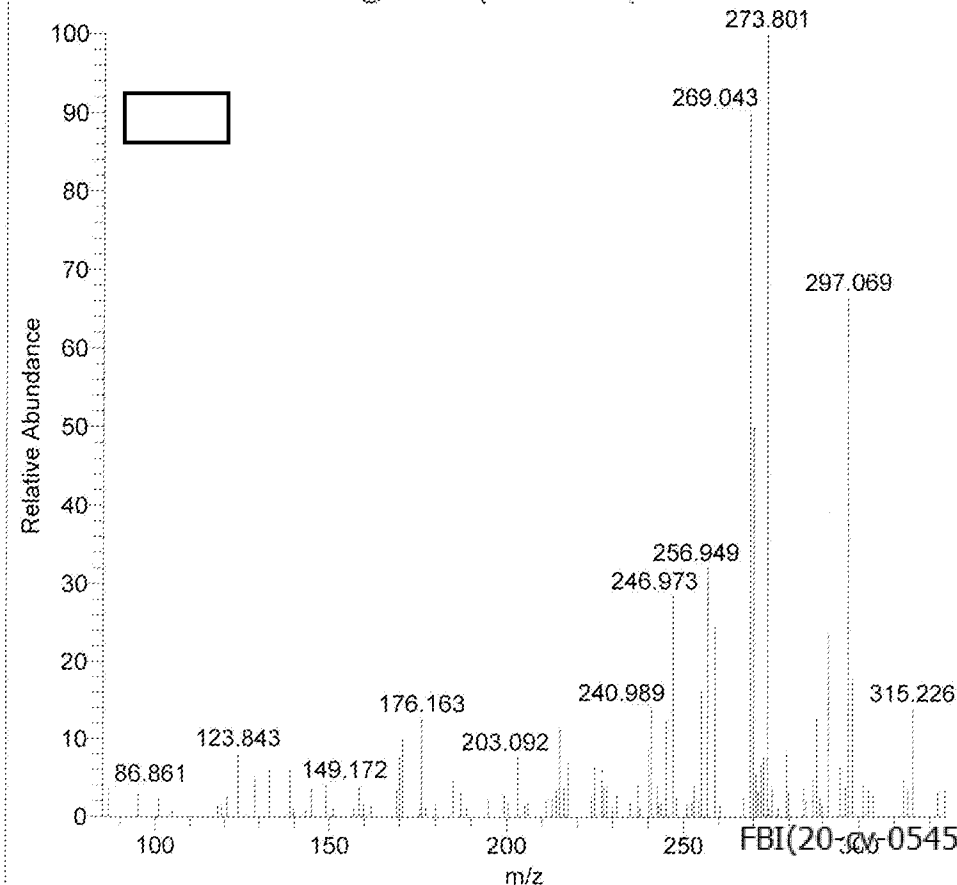
NL: 1.16E1  
m/z: 175.596-176.596 F:  
ITMS + c ESI Full ms2  
315.15@cid40.00  
[85.00-325.00] MS  
Genesis trgt\_09



NL: 1.14E1  
m/z: 123.674-124.674 F:  
ITMS + c ESI Full ms2  
315.15@cid40.00  
[85.00-325.00] MS  
Genesis trgt\_09

trgt\_09 #738-789 RT: 3.45-3.69 AV: 11 NL: 1.82E1

F: ITMS + c ESI Full ms2 315.15@cid40.00 [85.00-325.00]



b6 -1

b7C -1

FBI(20-cv-0545)-1486

10/5/2017 1:23:24 AM

1ppm std mix

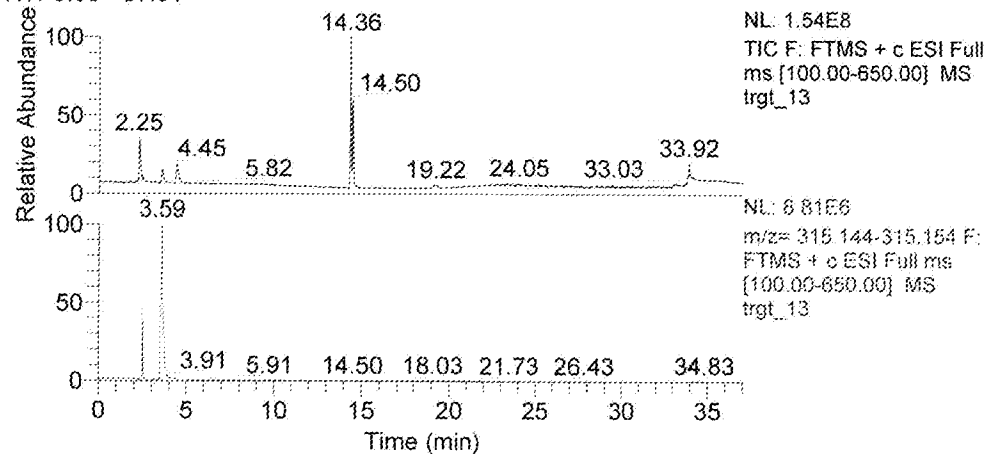
ranitidine layout

b6 -1

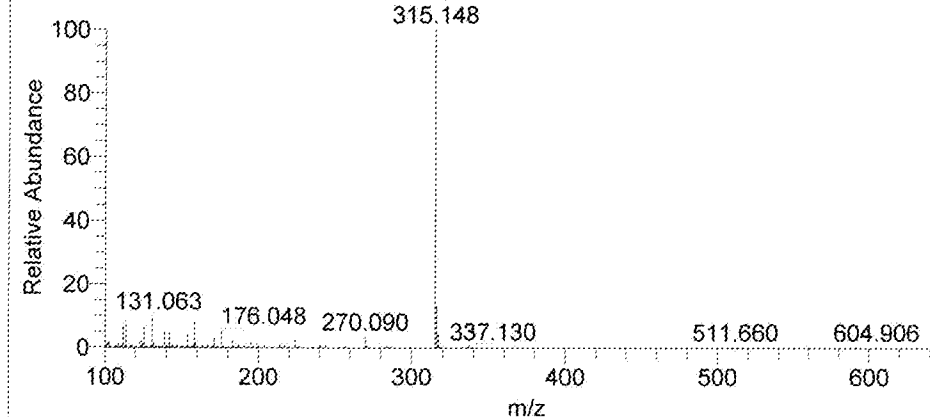
b7C -1

b7E -2

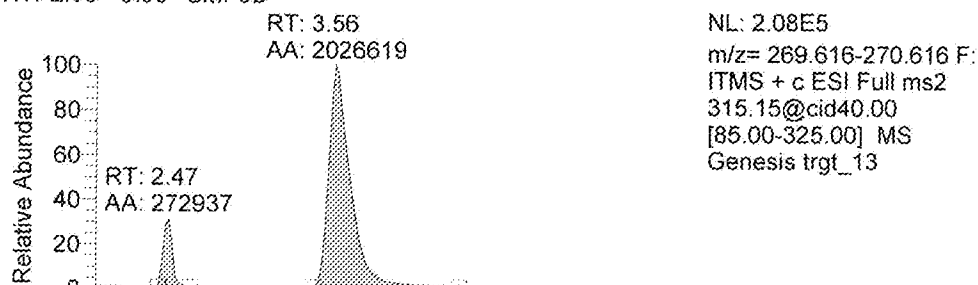
RT: 0.00 - 37.01



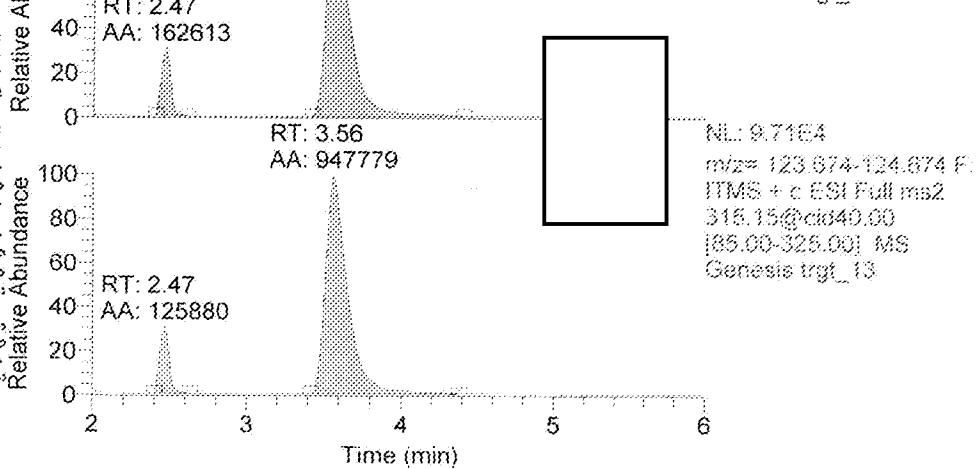
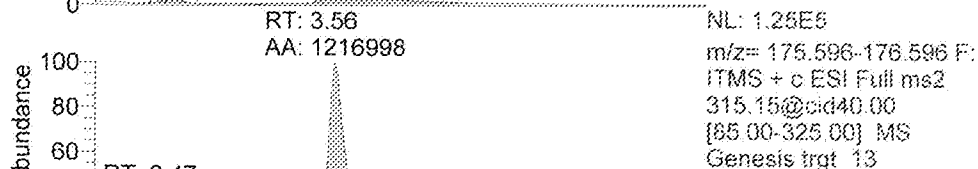
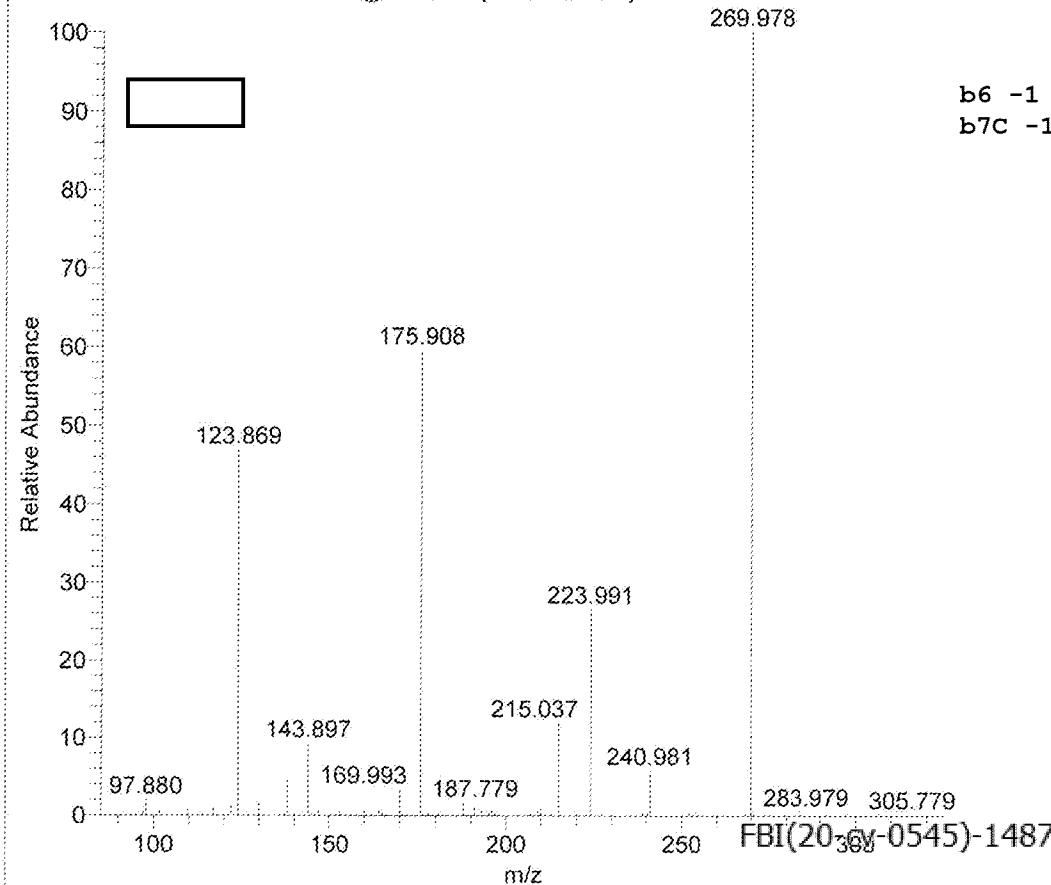
trgt\_13 #771 RT: 3.59 AV: 1 NL: 8.81E6  
F: FTMS + c ESI Full ms [100.00-650.00]



RT: 2.00 - 6.00 SM: 3B



trgt\_13 #749-812 RT: 3.49-3.76 AV: 13 NL: 1.11E5  
F: ITMS + c ESI Full ms2 315.15@cid40.00 [85.00-325.00]



1102-1701 69700-7102

FBI(20-cv-0545)-1487

10/4/2017 11:30:29 PM

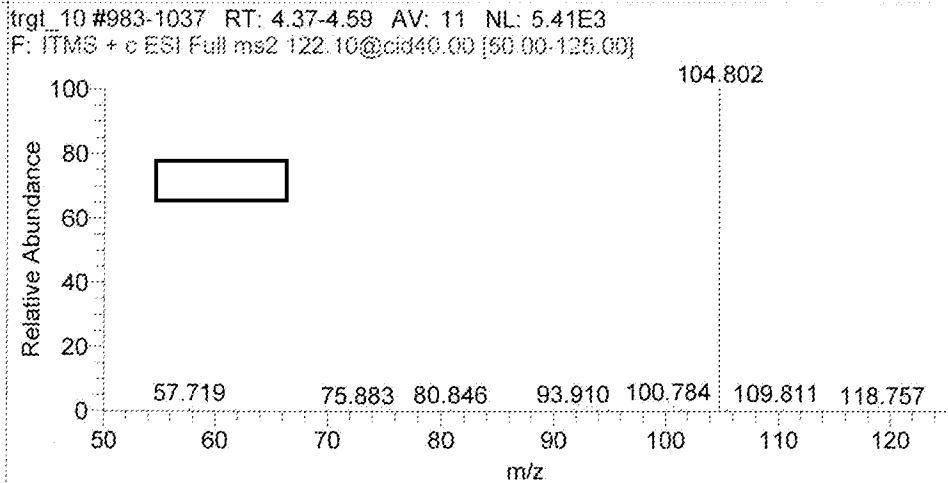
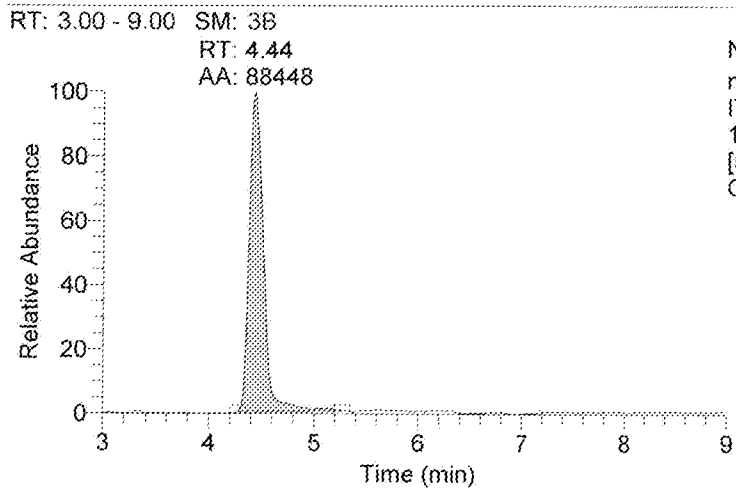
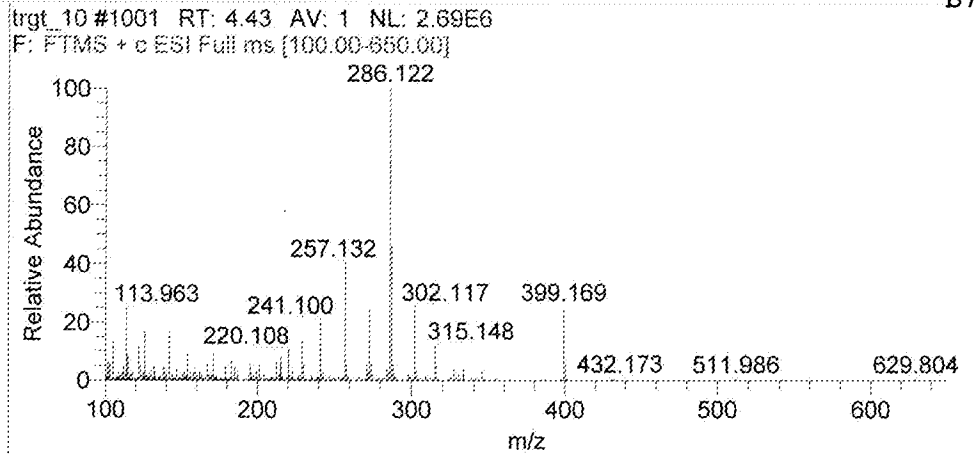
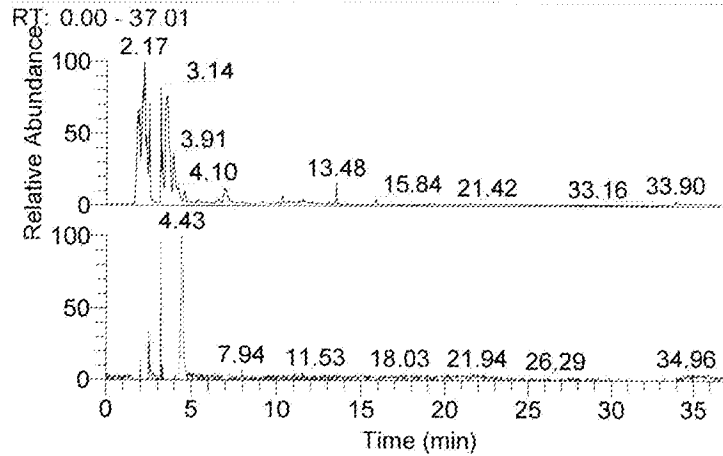
2017-00469, 2, urine

phenethylamine (ms2+ms3) layout

b6 -1

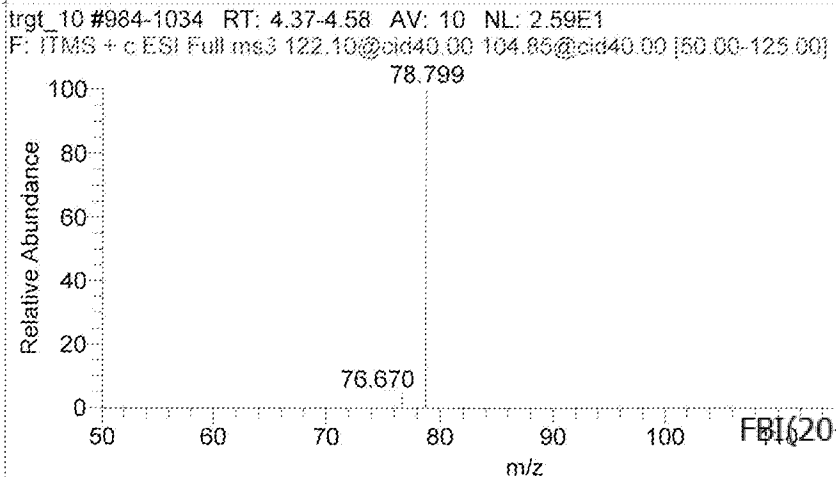
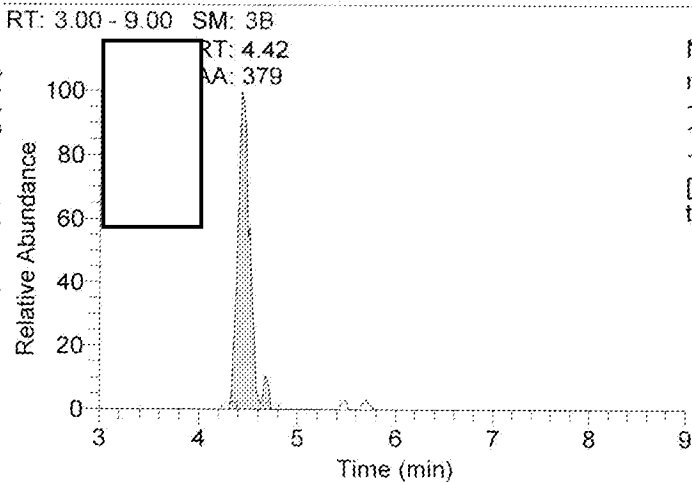
b7C -1

b7E -2



b6 -1

b7C -1



FBI(20-cv-0545)-1488



10/4/2017 10:15:13 PM

sb

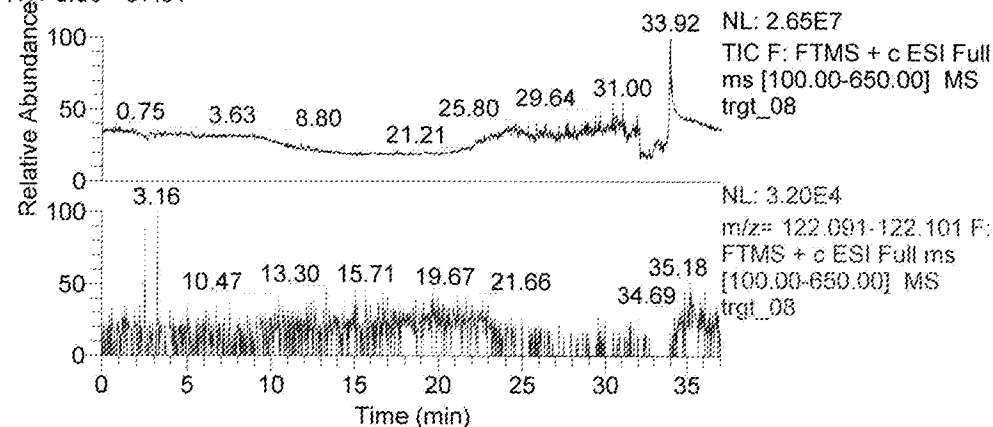
phenethylamine (ms2+ms3) layout

b6 -1

b7C -1

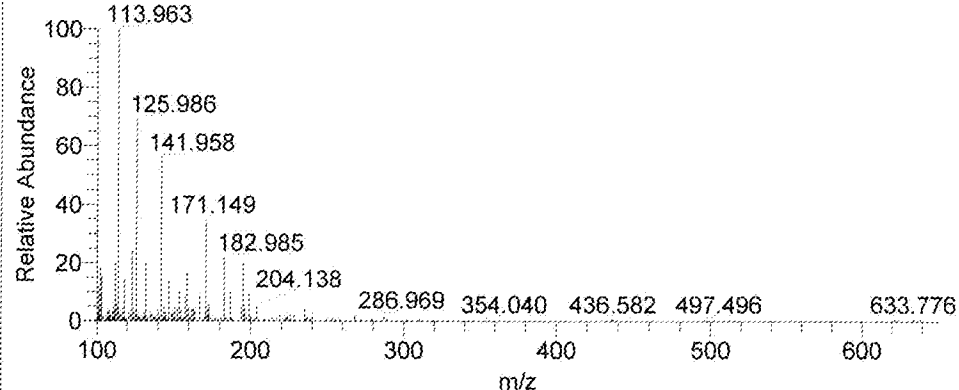
b7E -2

RT: 0.00 - 37.01

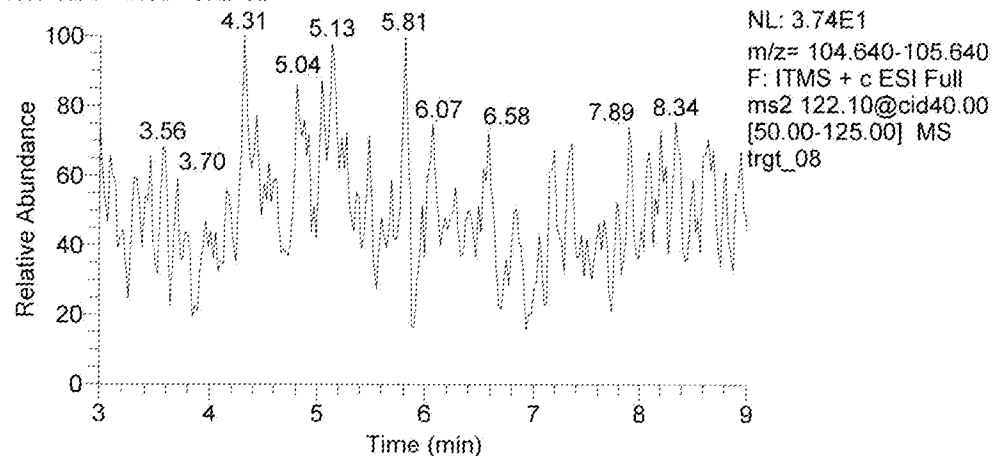


trgt\_08 #951 RT: 4.45 AV: 1 NL: 9.39E5

F: FTMS + c ESI Full ms [100.00-650.00]

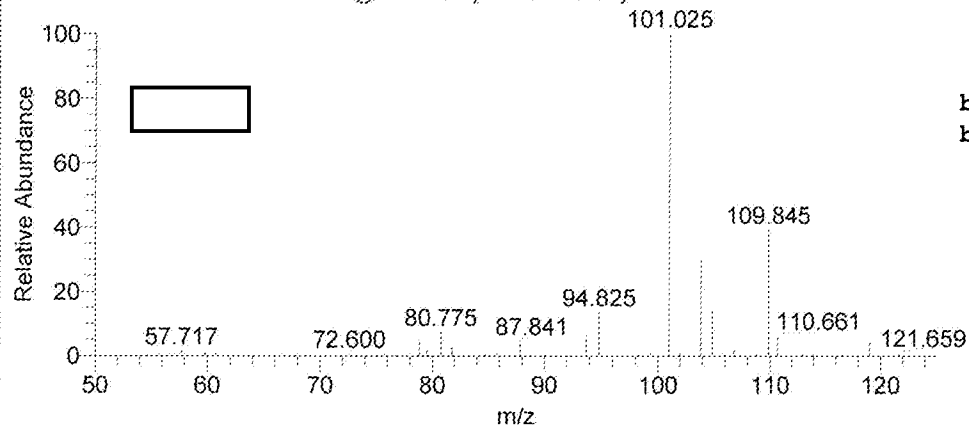


RT: 3.00 - 9.00 SM: 3B



trgt\_08 #930-982 RT: 4.36-4.59 AV: 11 NL: 1.61E2

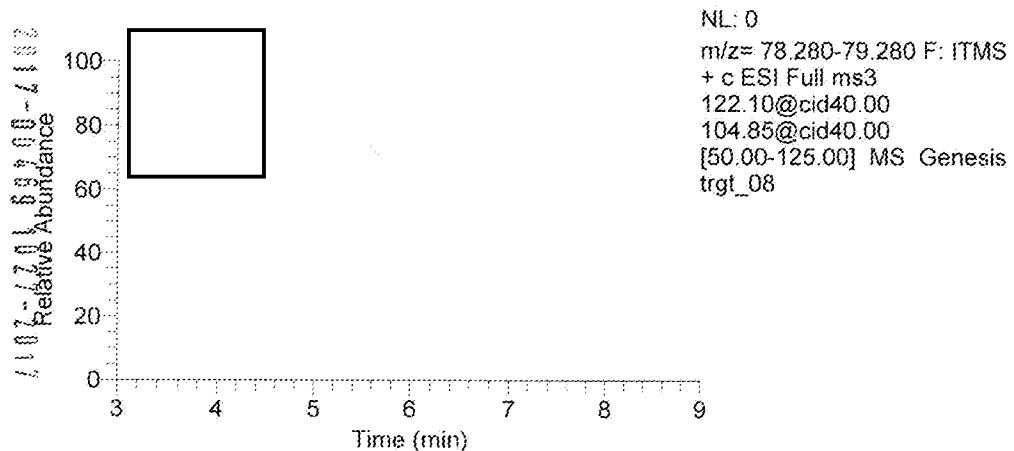
F: ITMS + c ESI Full ms2 122.10@cid40.00 [50.00-125.00]



b6 -1

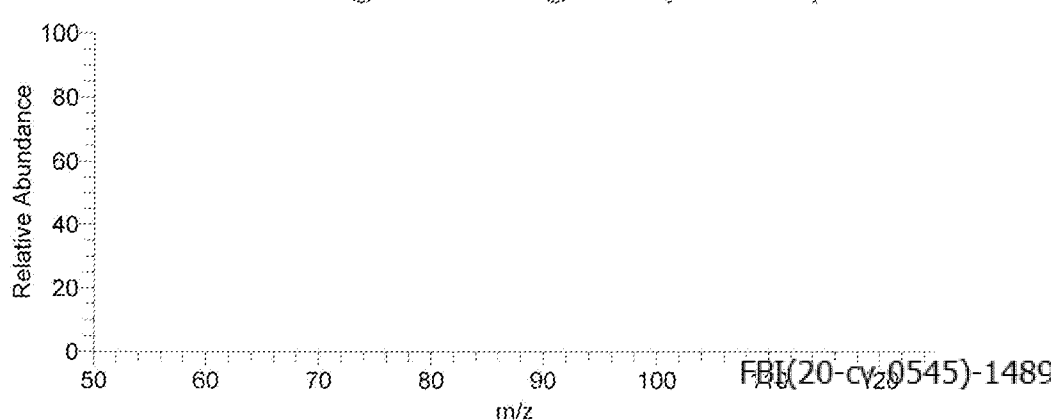
b7C -1

RT: 3.00 - 9.00 SM: 3B



trgt\_08 #931-979 RT: 4.36-4.57 AV: 10 NL: 0

F: ITMS + c ESI Full ms3 122.10@cid40.00 104.85@cid40.00 [50.00-125.00]



FBI(20-cv-0545)-1489

10/5/2017 12:45:43 AM

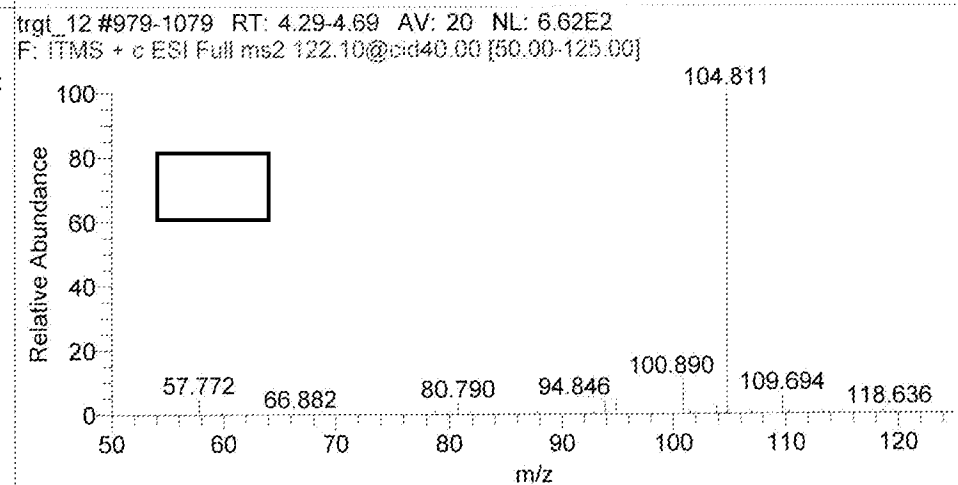
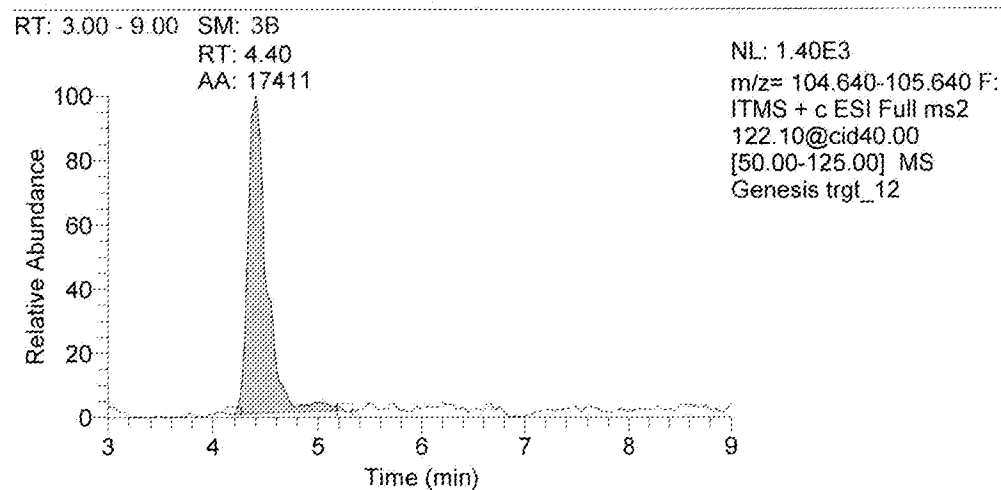
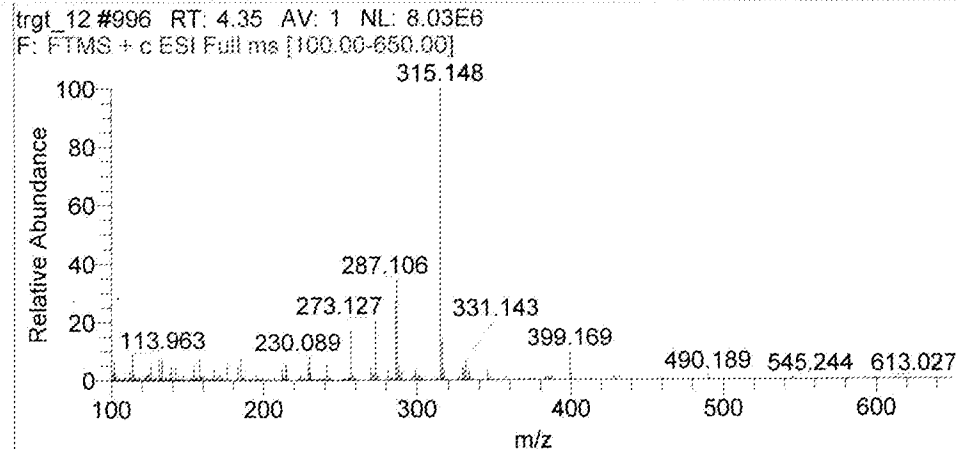
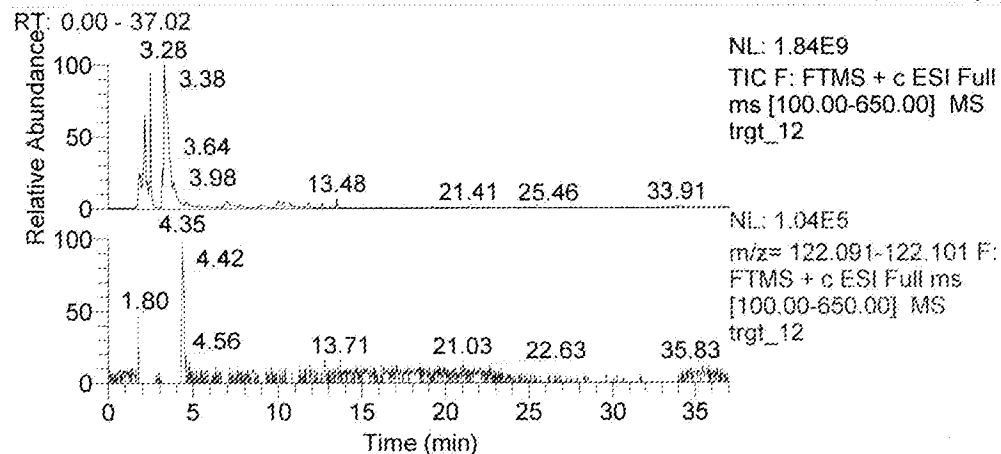
2017-00469, 5, urine

phenethylamine (ms2+ms3) layout

b6 -1

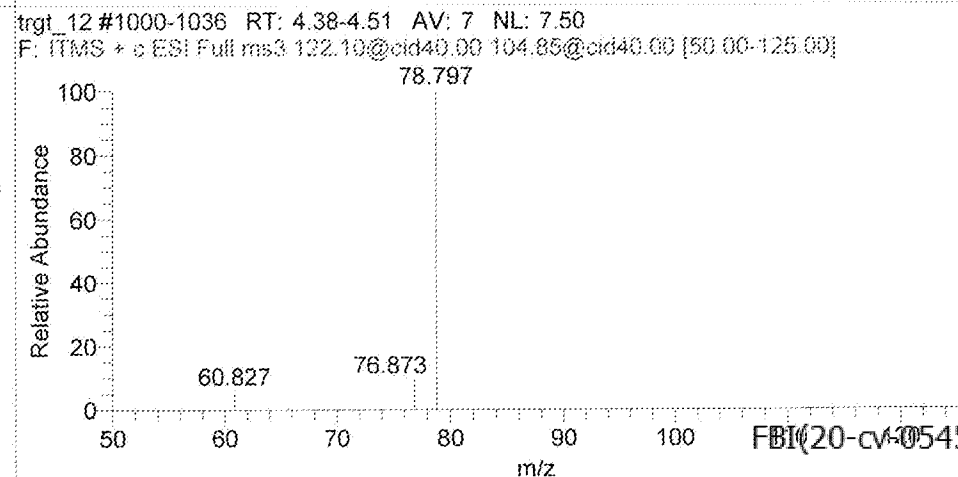
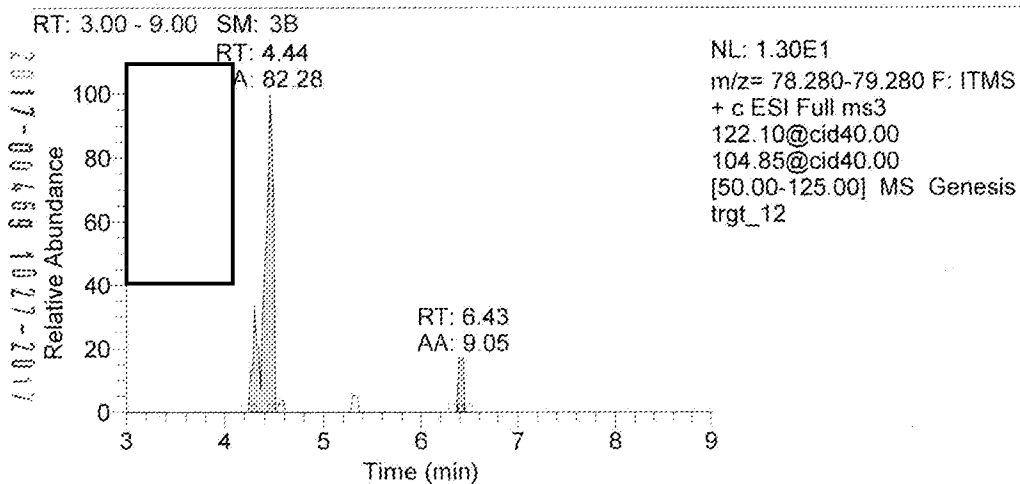
b7C -1

b7E -2



b6 -1

b7C -1



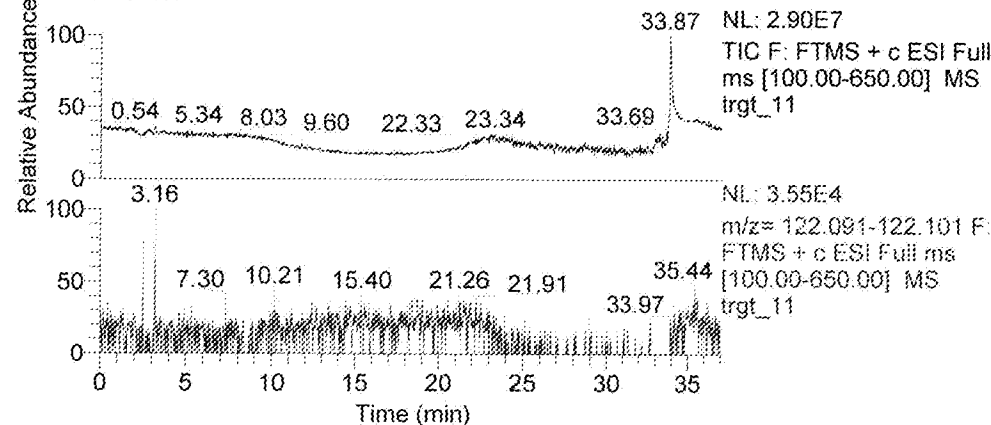
FBI(20-cv-1490)-1490

10/5/2017 12:08:05 AM  
phenethylamine (ms2+ms3) layout

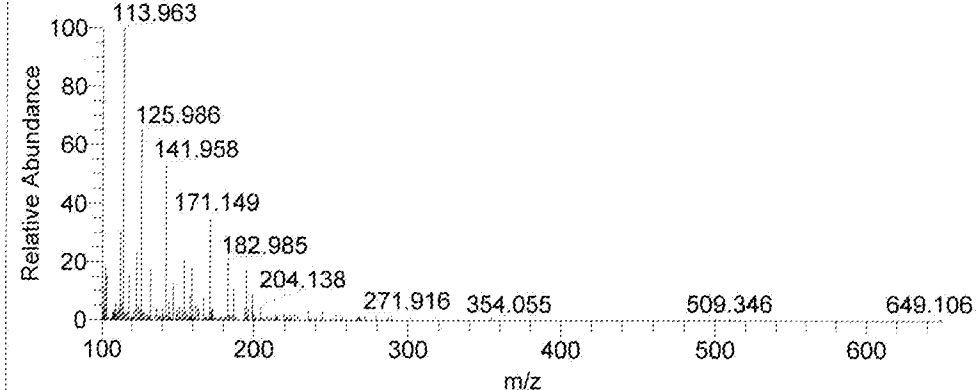
sb

b6 -1  
b7C -1  
b7E -2

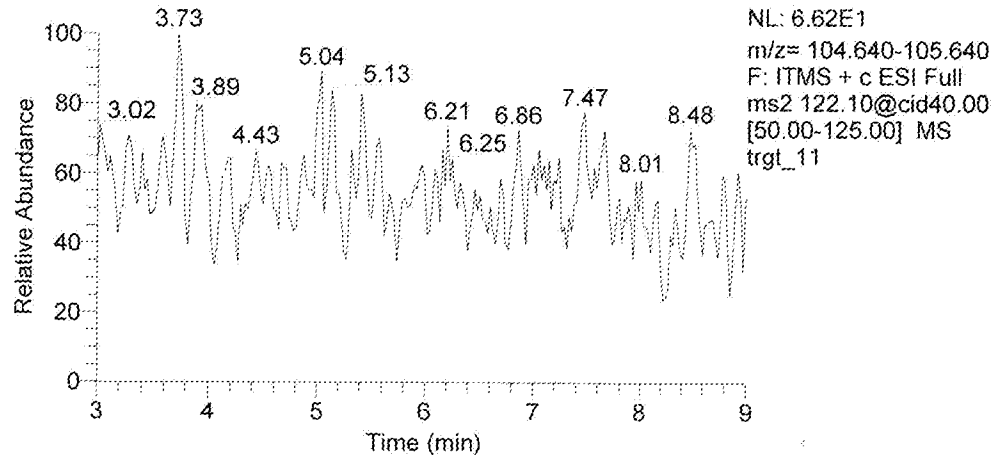
RT: 0.00 - 37.00



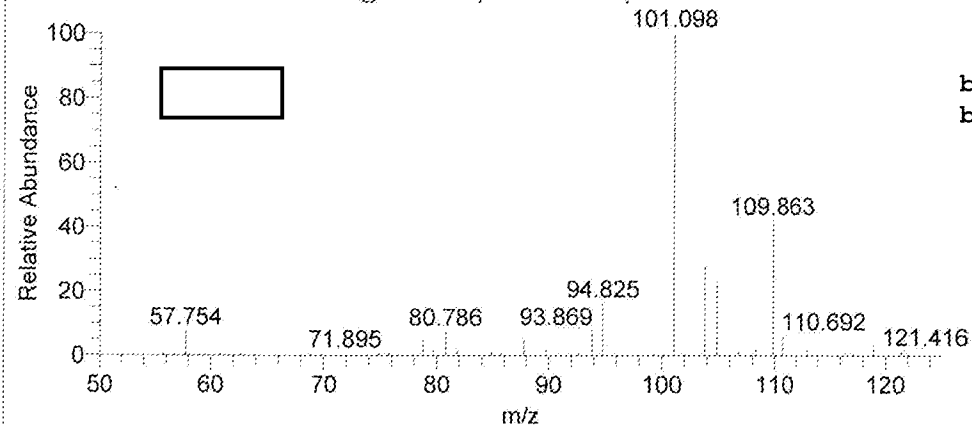
trgt\_11 #931 RT: 4.35 AV: 1 NL: 9.63E5  
F: FTMS + c ESI Full ms [100.00-650.00]



RT: 3.00 - 9.00 SM: 3B

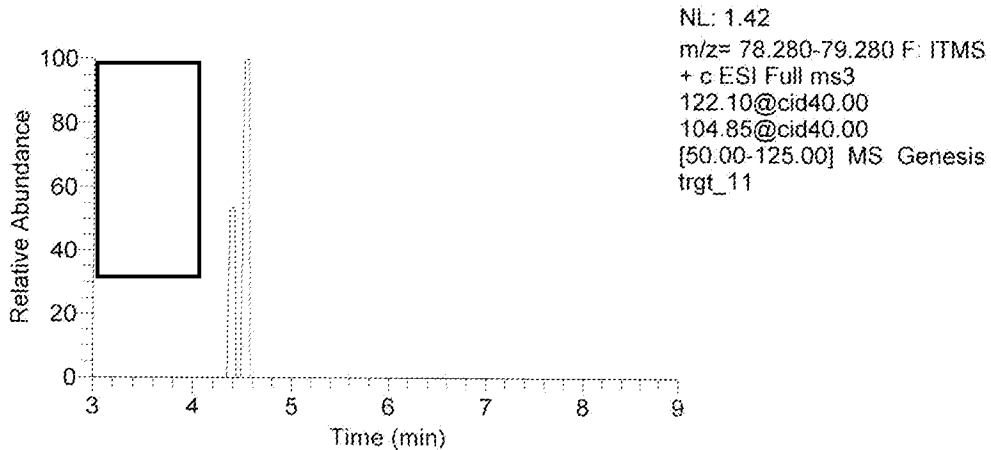


trgt\_11 #915-1005 RT: 4.29-4.69 AV: 18 NL: 1.60E2  
F: ITMS + c ESI Full ms2 122.10@cid40.00 [50.00-125.00]

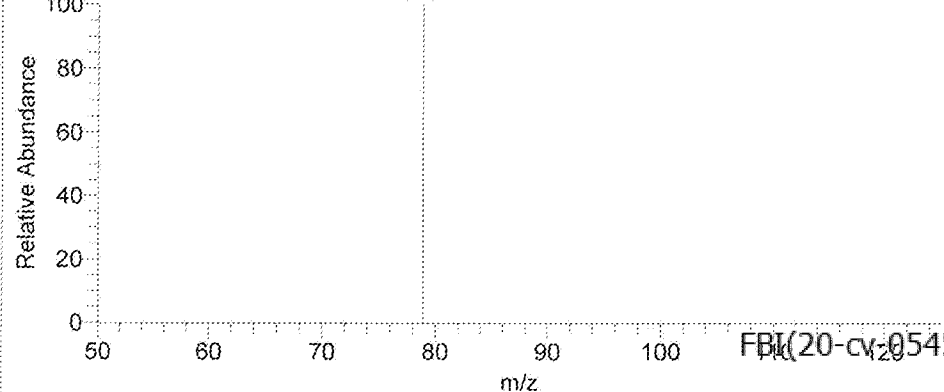


b6 -1  
b7C -1

RT: 3.00 - 9.00 SM: 3B



trgt\_11 #934-966 RT: 4.39-4.50 AV: 6 NL: 3.80E-1  
F: ITMS + c ESI Full ms3 122.10@cid40.00 104.85@cid40.00 [50.00-125.00]



FBI(20-cv-0545)-1491

10/5/2017 1:23:24 AM

1ppm std mix

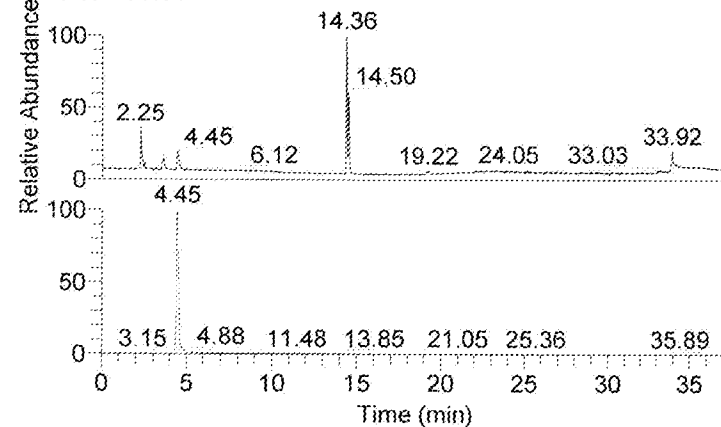
phenethylamine (ms2+ms3) layout

b6 -1

b7C -1

b7E -2

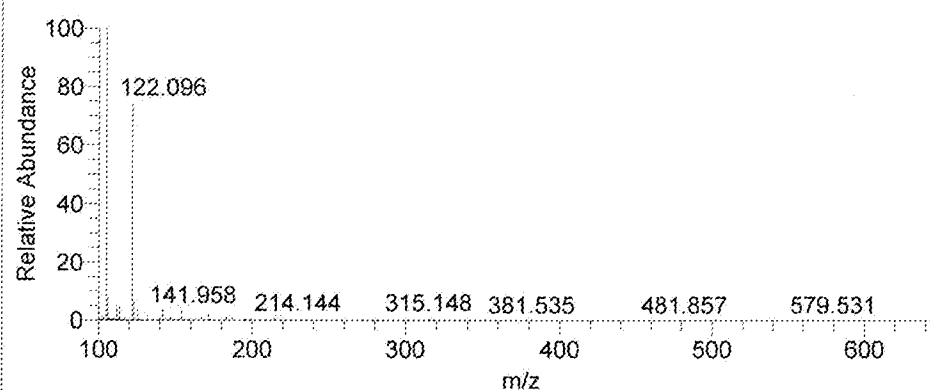
RT: 0.00 - 37.01



NL: 1.54E8  
TIC F: FTMS + c ESI Full  
ms [100.00-650.00] MS  
trgt\_13

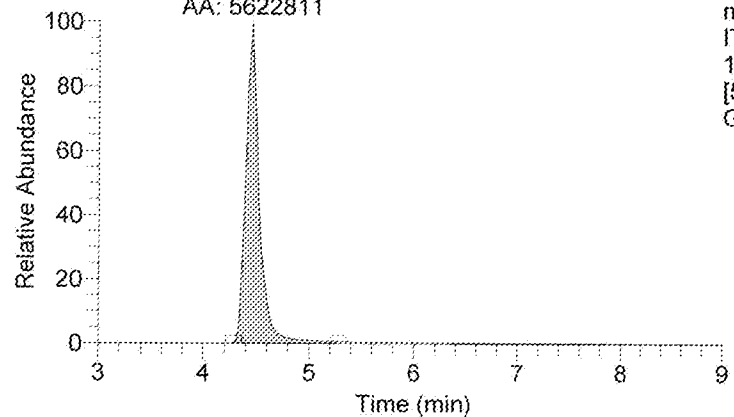
NL: 8.63E6  
m/z= 122.091-122.101 F:  
FTMS + c ESI Full ms  
[100.00-650.00] MS  
trgt\_13

trgt\_13 #961 RT: 4.45 AV: 1 NL: 1.15E7  
F: FTMS + c ESI Full ms [100.00-650.00]



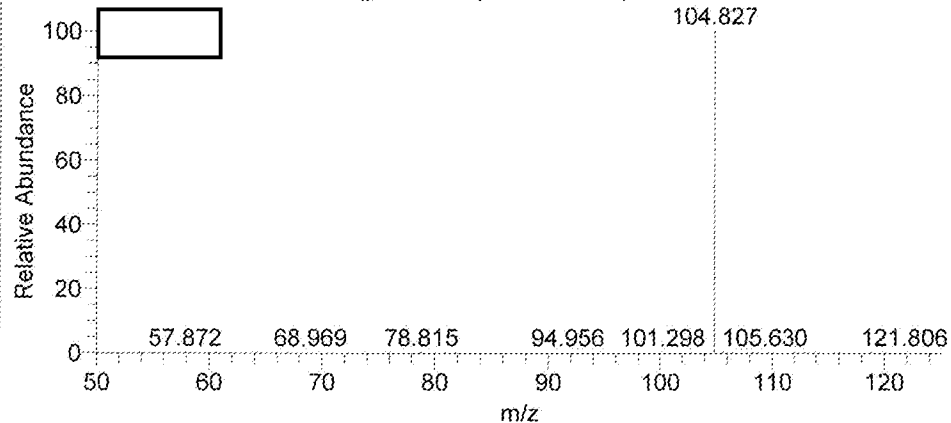
RT: 3.00 - 9.00 SM: 3B

RT: 4.46  
AA: 5622811



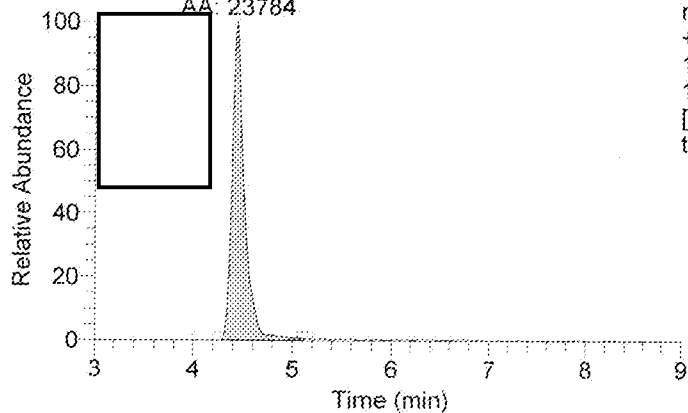
NL: 6.28E5  
m/z= 104.640-105.640 F:  
ITMS + c ESI Full ms2  
122.10@cid40.00  
[50.00-125.00] MS  
Genesis trgt\_13

trgt\_13 #934-1013 RT: 4.35-4.67 AV: 16 NL: 2.71E5  
F: ITMS + c ESI Full ms2 122.10@cid40.00 [50.00-125.00]



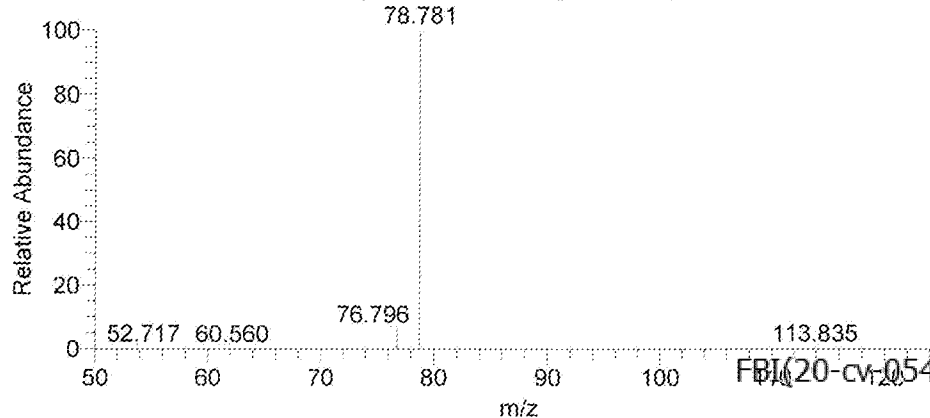
RT: 3.00 - 9.00 SM: 3B

RT: 4.44  
AA: 23784



NL: 2.83E3  
m/z= 78.280-79.280 F: ITMS  
+ c ESI Full ms3  
122.10@cid40.00  
104.85@cid40.00  
[50.00-125.00] MS Genesis  
trgt\_13

trgt\_13 #937-1008 RT: 4.36-4.66 AV: 15 NL: 1.23E3  
F: ITMS + c ESI Full ms3 122.10@cid40.00 104.85@cid40.00 [50.00-125.00]



b6 -1

b7C -1

FBI(20-cv-0545)-1492

10/4/2017 10:52:51 PM  
phenethylamine (ms2+ms3) layout

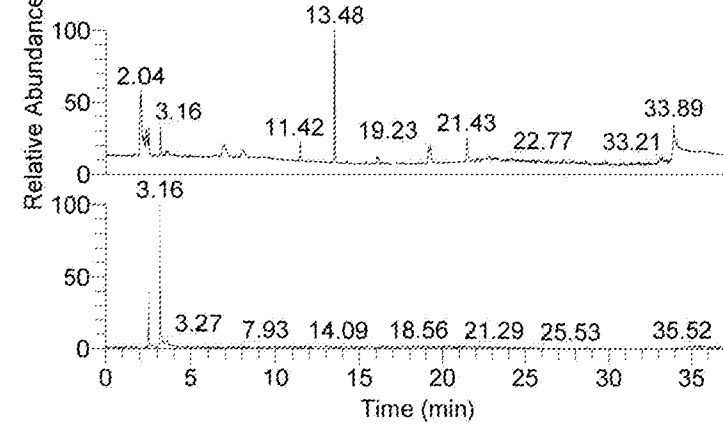
ncu

b6 -1

b7C -1

b7E -2

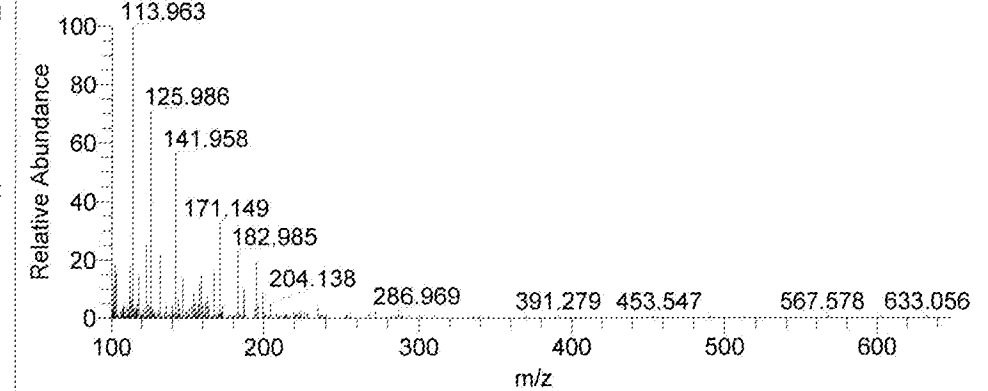
RT: 0.00 - 37.02



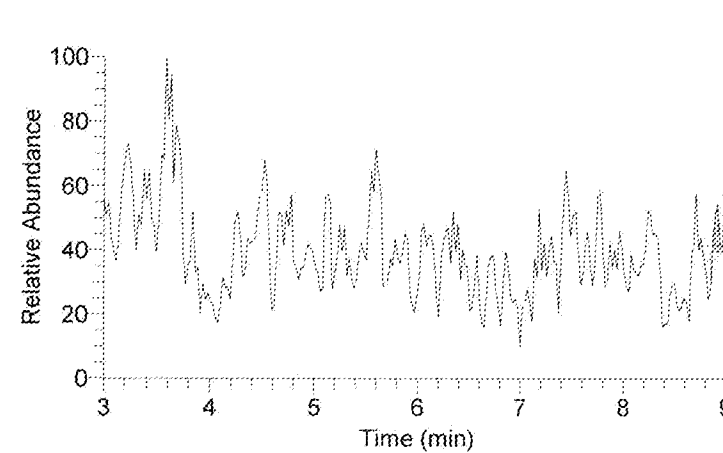
NL: 7.01E7  
TIC F: FTMS + c ESI Full  
ms [100.00-650.00] MS  
trgt\_09

NL: 6.36E5  
m/z= 122.091-122.101 F:  
FTMS + c ESI Full ms  
[100.00-650.00] MS  
trgt\_09

trgt\_09 #951 RT: 4.45 AV: 1 NL: 8.69E5  
F: FTMS + c ESI Full ms [100.00-650.00]

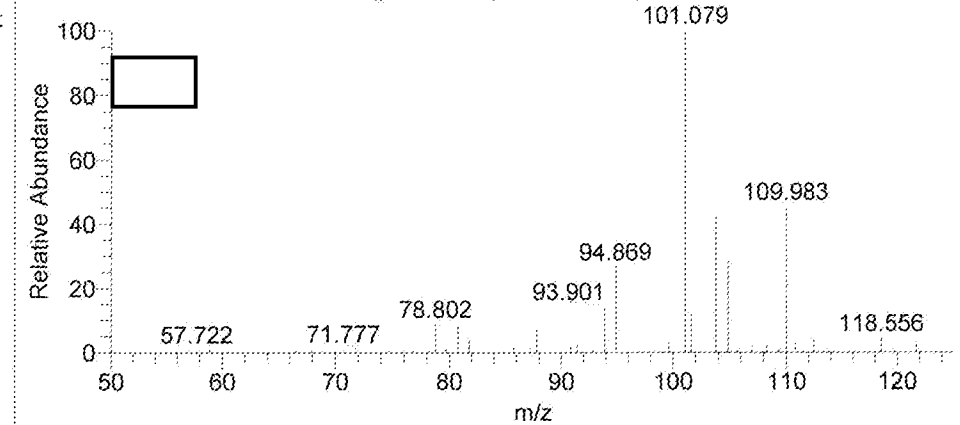


RT: 3.00 - 9.00 SM: 3B

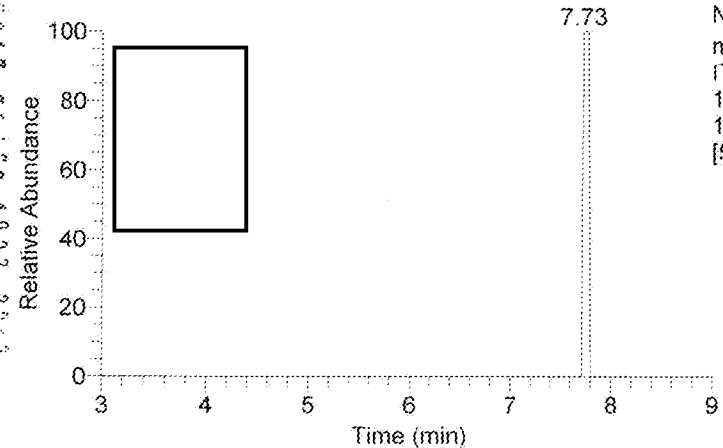


NL: 5.17E1  
m/z= 104.640-105.640 F:  
ITMS + c ESI Full ms2  
122.10@cid40.00  
[50.00-125.00] MS  
Genesis trgt\_09

trgt\_09 #931-983 RT: 4.36-4.59 AV: 11 NL: 8.66E1  
F: ITMS + c ESI Full ms2 122.10@cid40.00 [50.00-125.00]

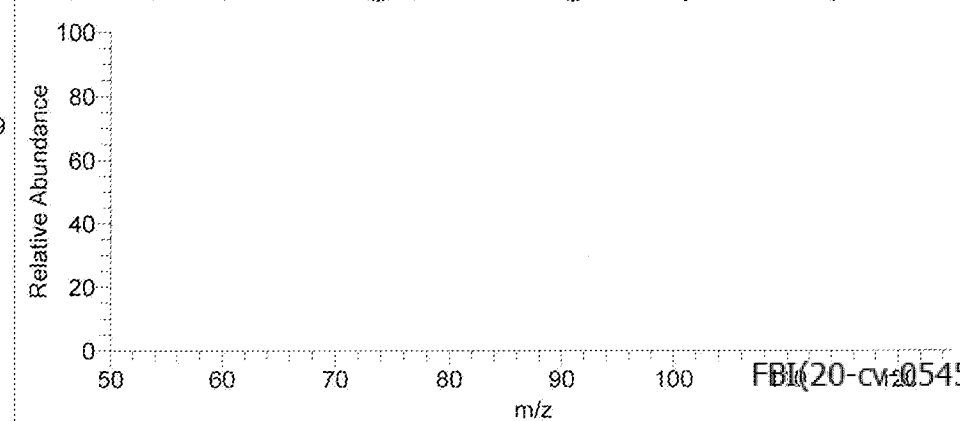


RT: 3.00 - 9.00 SM: 3B



NL: 8.32E-1  
m/z= 78.280-79.280 F:  
ITMS + c ESI Full ms3  
122.10@cid40.00  
104.85@cid40.00  
[50.00-125.00] MS trgt\_09

trgt\_09 #932-980 RT: 4.36-4.57 AV: 10 NL: 0  
F: ITMS + c ESI Full ms3 122.10@cid40.00 104.85@cid40.00 [50.00-125.00]



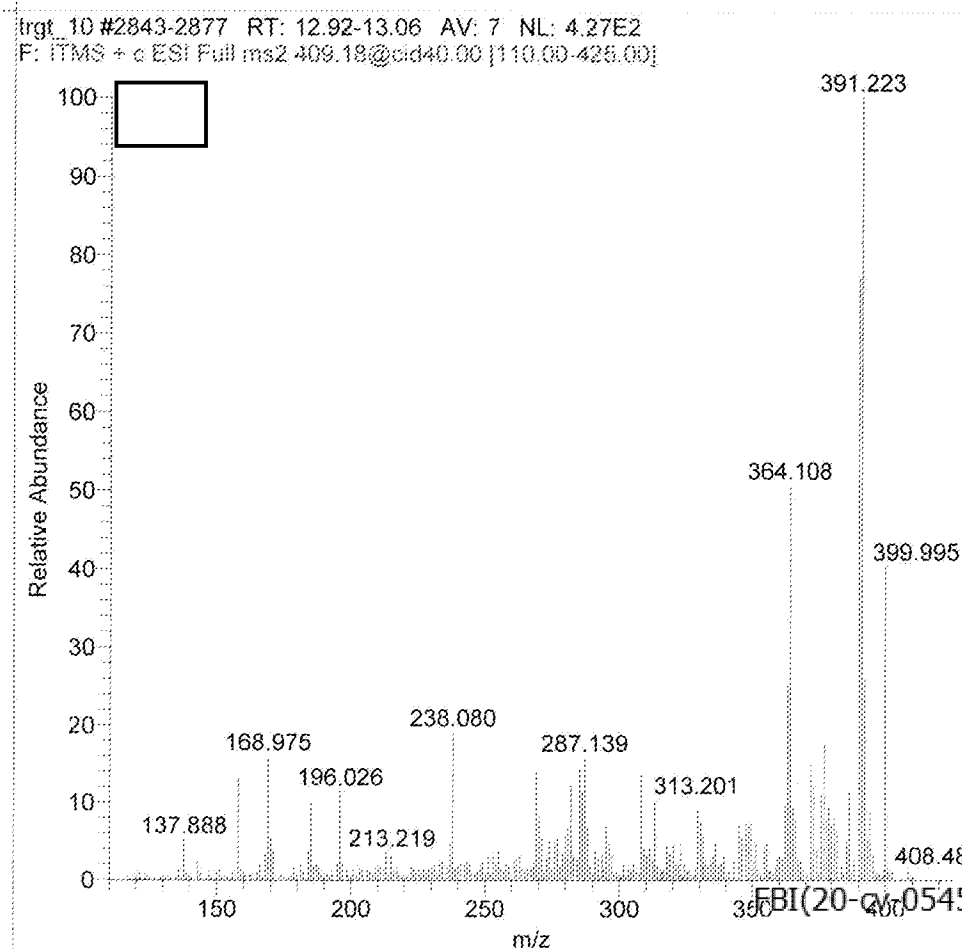
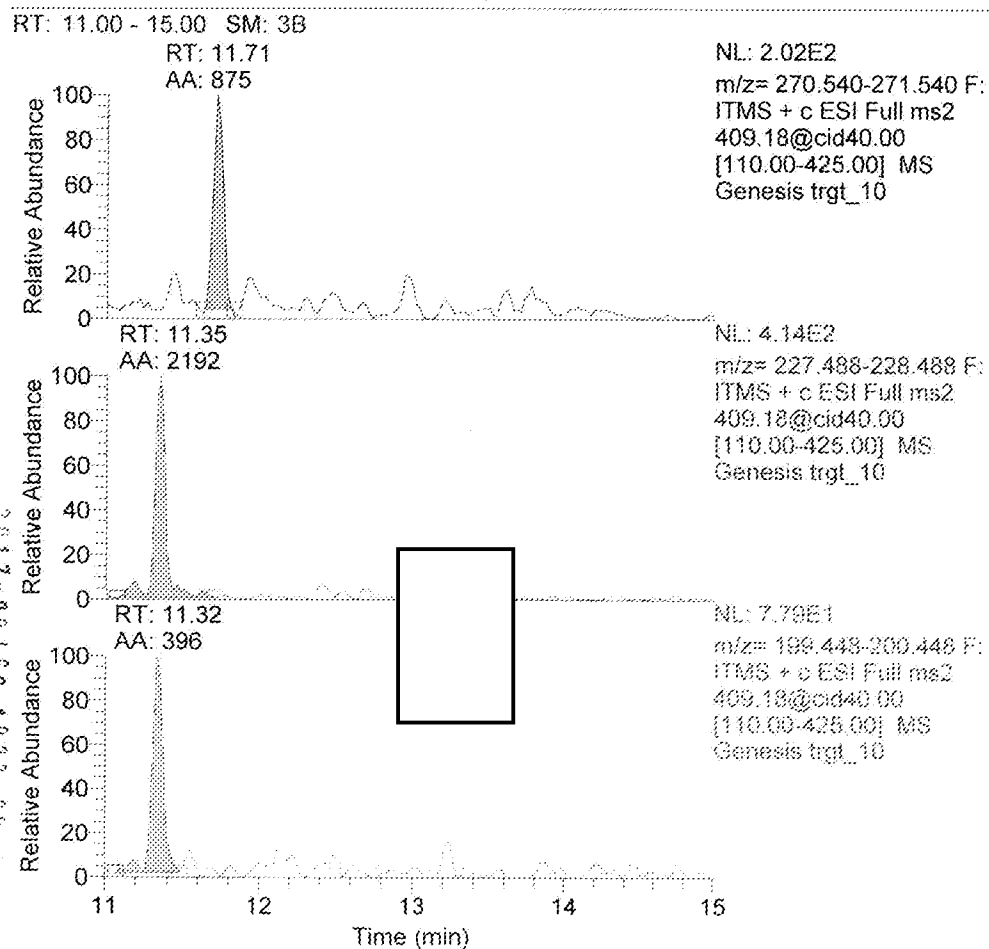
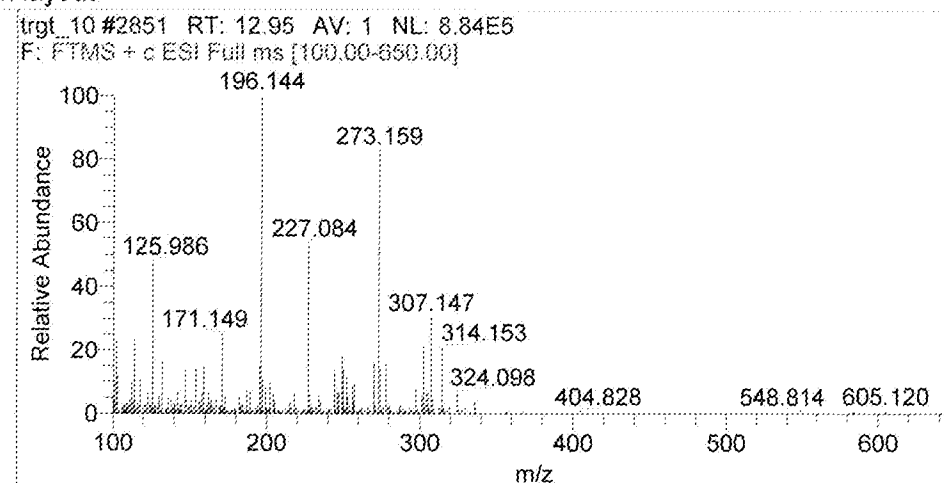
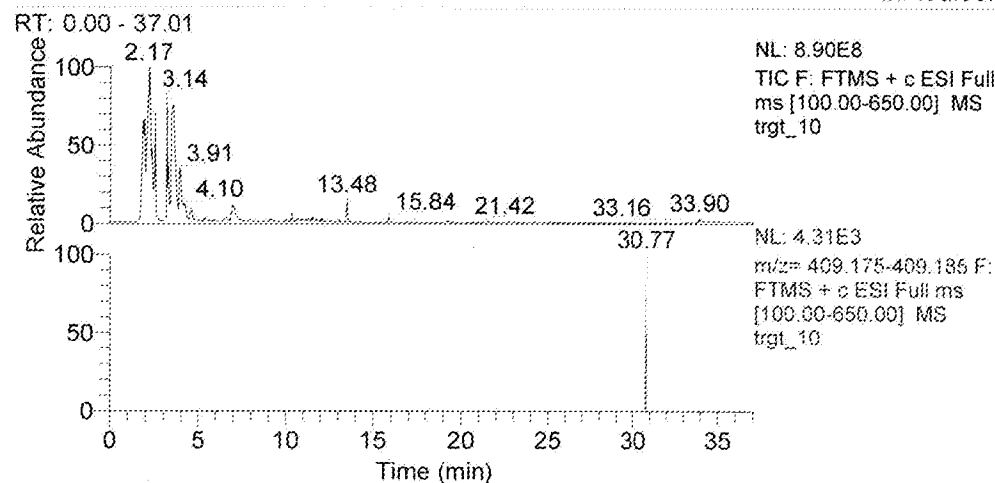
b6 -1

b7C -1

10/4/2017 11:30:29 PM  
tamsulosin layout

2017-00469, 2, urine

b6 -1  
b7C -1  
b7E -2



b6 -1  
b7C -1

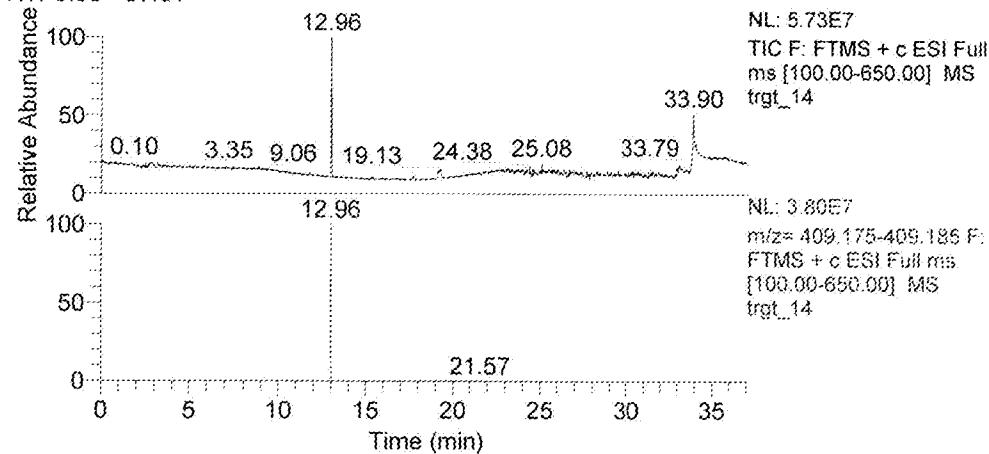
FBI(20-cv-0545)-1494

10/5/2017 2:01:03 AM  
tamsulosin layout

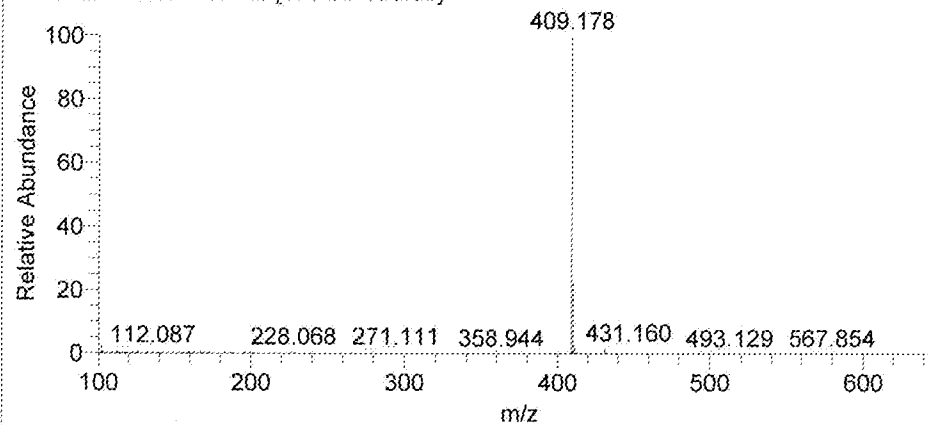
1ppm tamsulosin std

b6 -1  
b7C -1  
b7E -2

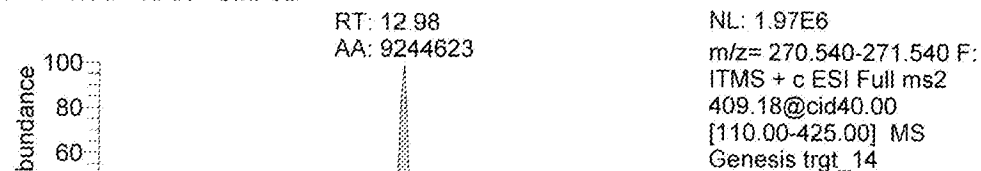
RT: 0.00 - 37.01



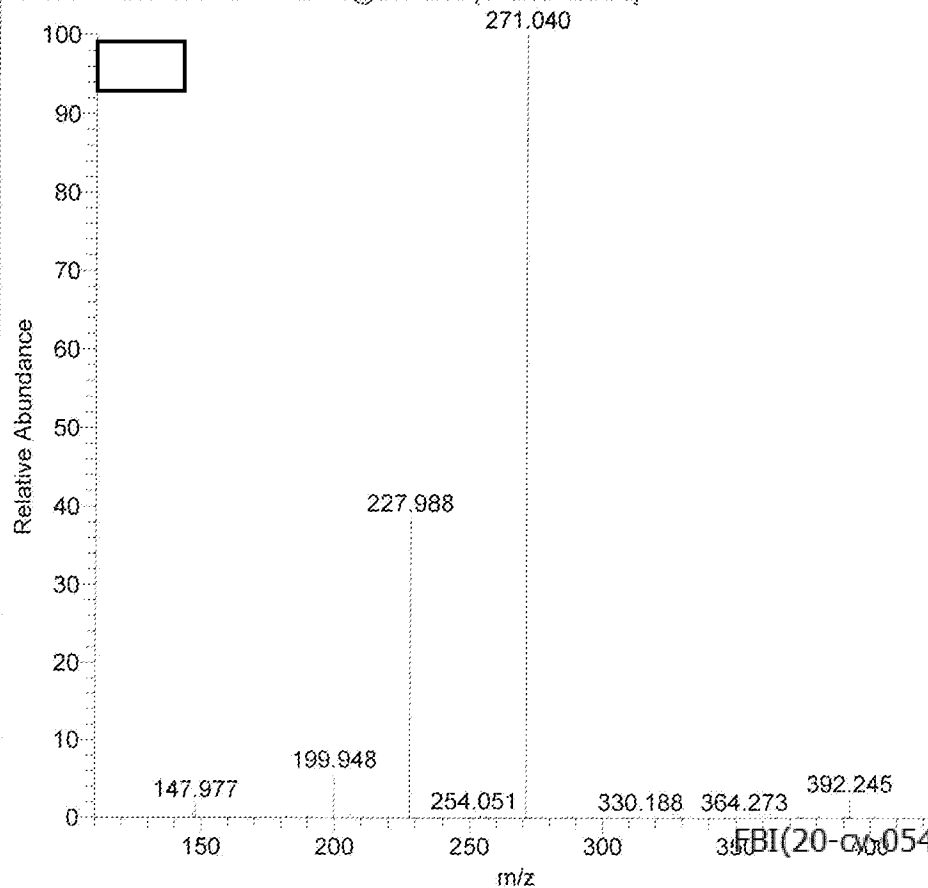
trgt\_14 #2771 RT: 12.96 AV: 1 NL: 3.80E7  
F: FTMS + c ESI Full ms [100.00-650.00]



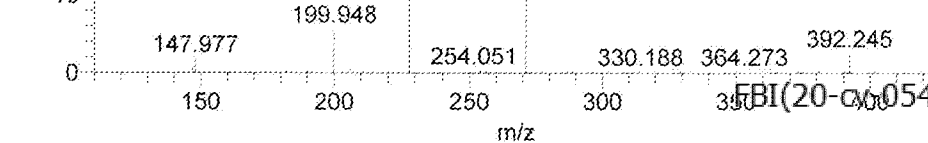
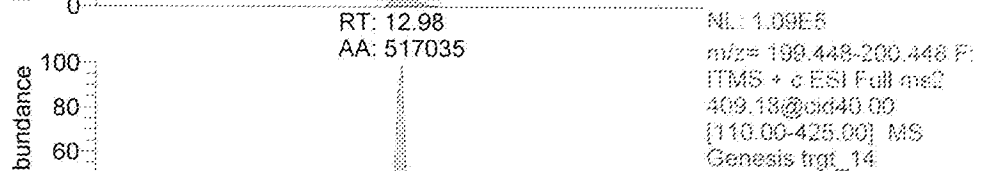
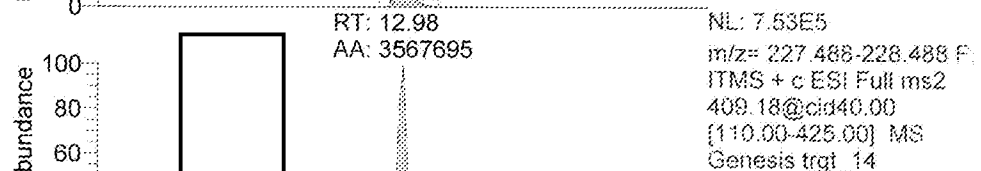
RT: 11.00 - 15.00 SM: 3B



trgt\_14 #2759-2796 RT: 12.92-13.07 AV: 8 NL: 9.04E5  
F: ITMS + c ESI Full ms2 409.18@cid40.00 [110.00-425.00]



b6 -1  
b7C -1



FBI(20-cv-0545)-1495

10/4/2017 10:52:51 PM

ncu

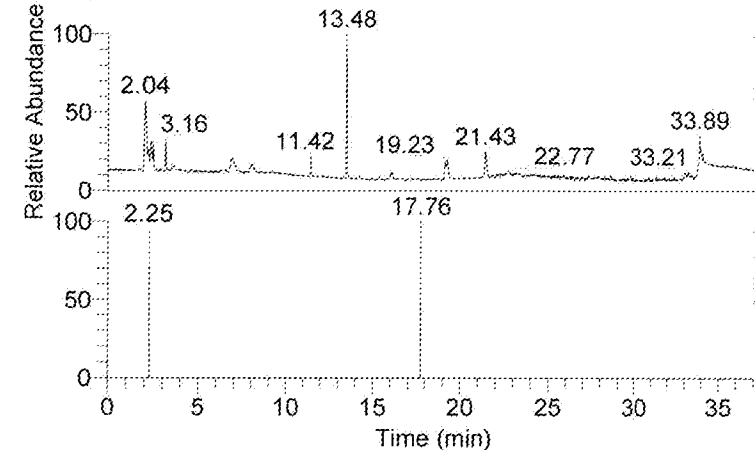
tamsulosin layout

b6 -1

b7C -1

b7E -2

RT: 0.00 - 37.02

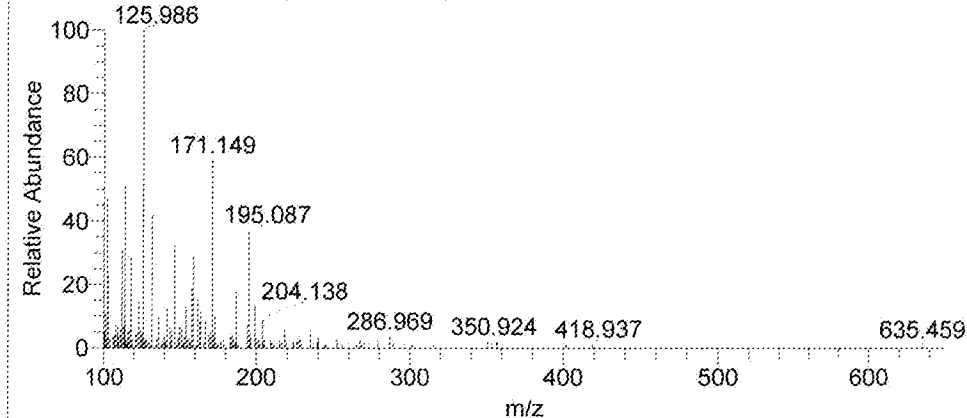


NL: 7.01E7  
TIC F: FTMS + c ESI Full  
ms [100.00-650.00] MS  
trgt\_09

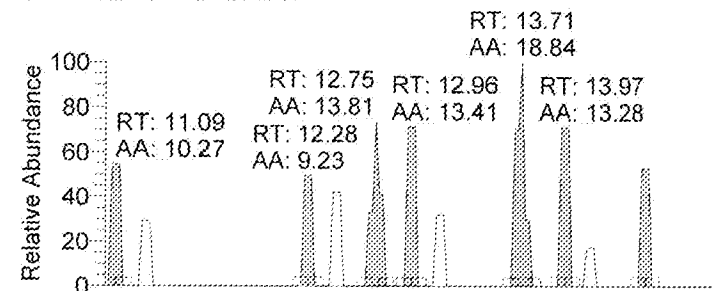
NL: 4.46E3  
m/z= 409.175-409.185 F:  
FTMS + c ESI Full ms  
[100.00-650.00] MS  
trgt\_09

trgt\_09 #2766 RT: 12.94 AV: 1 NL: 4.45E5

F: FTMS + c ESI Full ms [100.00-650.00]



RT: 11.00 - 15.00 SM: 3B

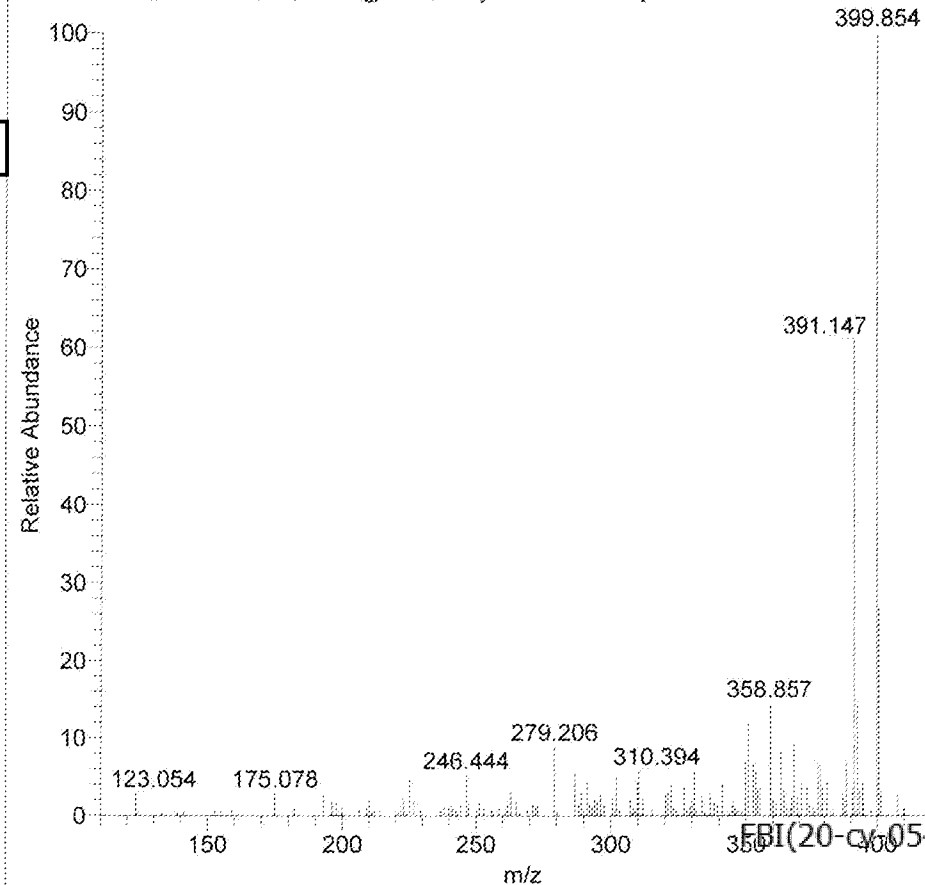


NL: 4.48  
m/z= 270.540-271.540 F:  
ITMS + c ESI Full ms2  
409.18@cid40.00  
[110.00-425.00] MS  
Genesis trgt\_09

NL: 5.69  
m/z= 227.488-228.488 F:  
ITMS + c ESI Full ms2  
409.18@cid40.00  
[110.00-425.00] MS  
Genesis trgt\_09

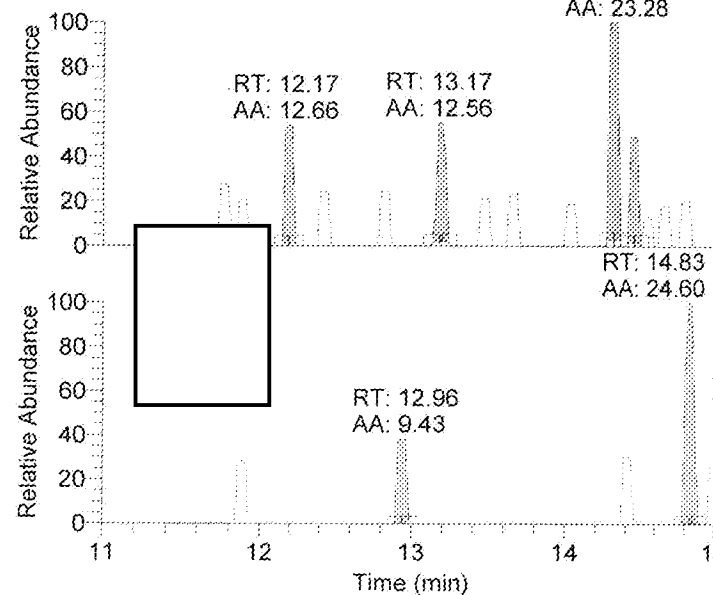
trgt\_09 #2759-2793 RT: 12.92-13.06 AV: 7 NL: 8.54E1

F: ITMS + c ESI Full ms2 409.18@cid40.00 [110.00-425.00]



b6 -1

b7C -1



NL: 5.84  
m/z= 199.448-200.448 F:  
ITMS + c ESI Full ms2  
409.18@cid40.00  
[110.00-425.00] MS  
Genesis trgt\_09

FBI(20-cv-0545)-1496



10/4/2017 10:15:13 PM

sb

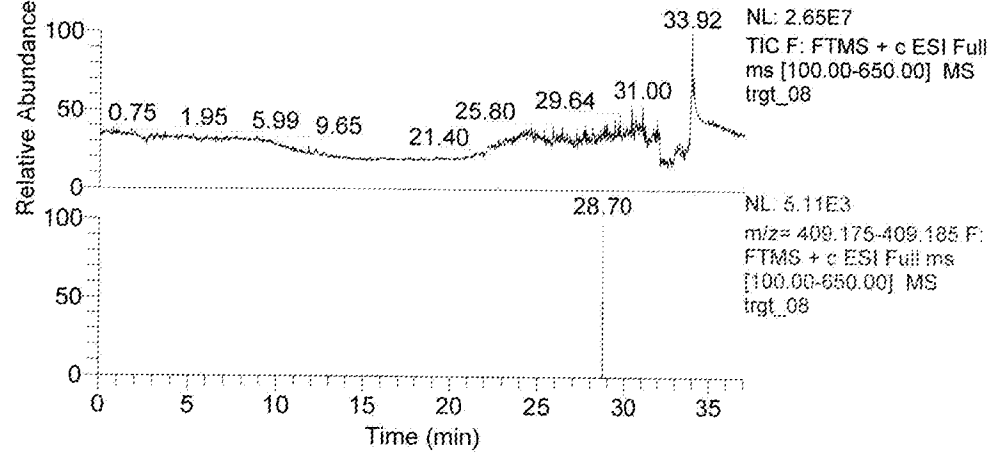
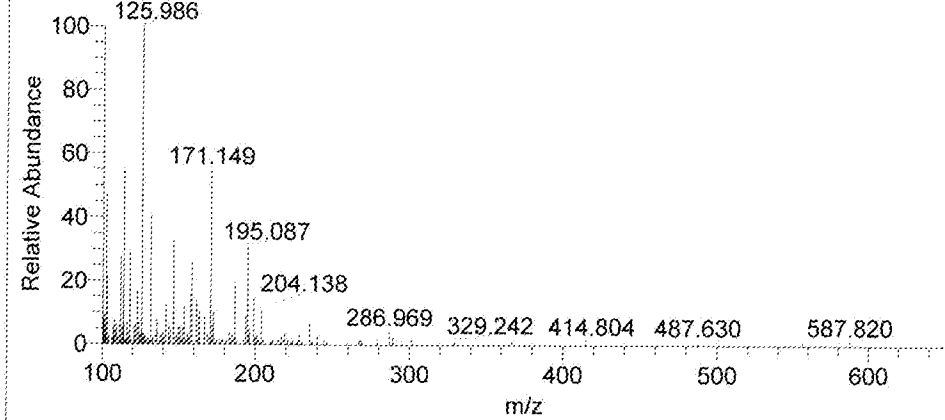
tamsulosin layout

b6 -1

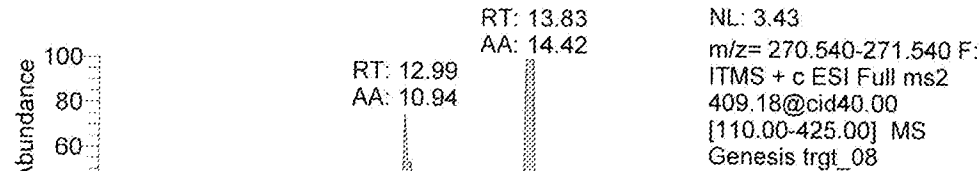
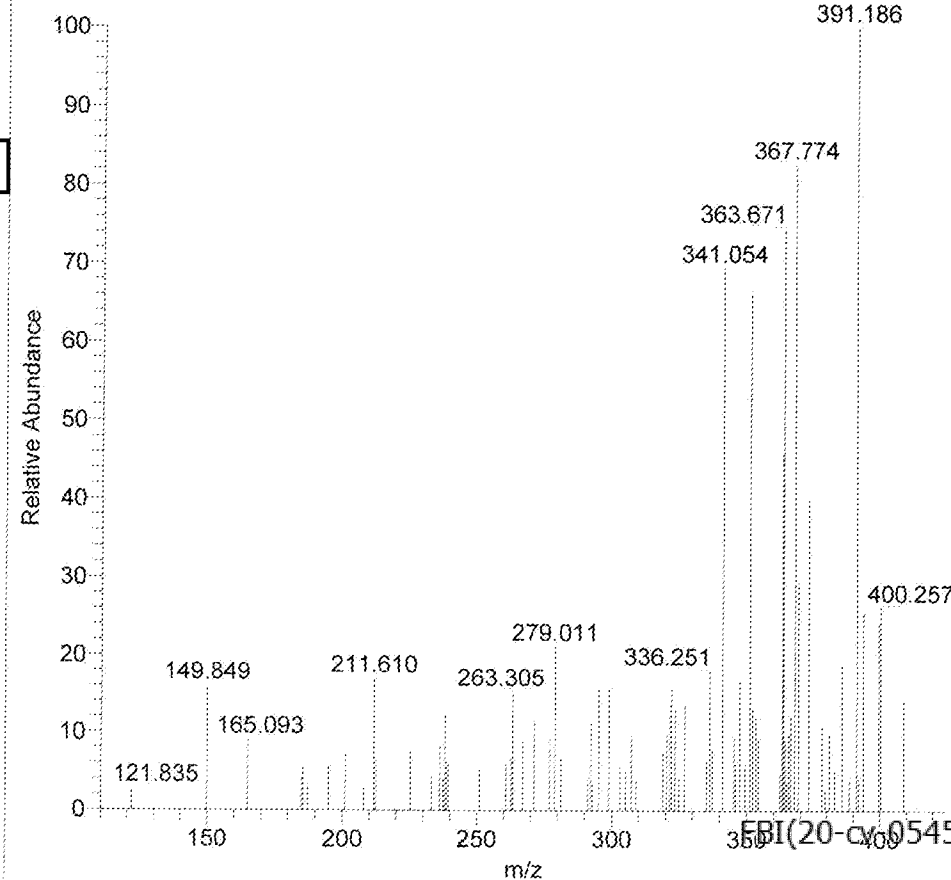
b7C -1

b7E -2

RT: 0.00 - 37.01

trgt\_08 #2766 RT: 12.95 AV: 1 NL: 4.64E5  
F: FTMS + c ESI Full ms [100.00-650.00]

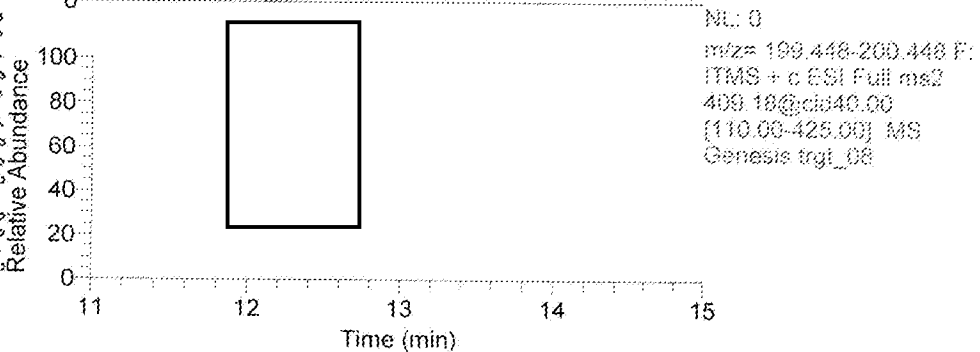
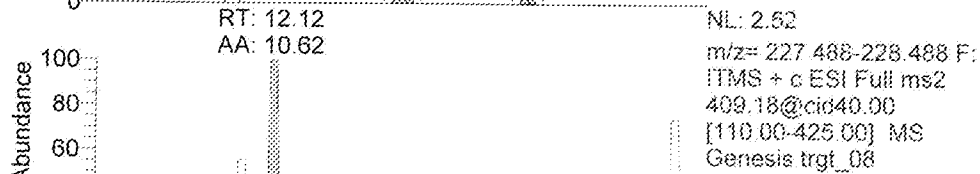
RT: 11.00 - 15.00 SM: 3B

trgt\_08 #2759-2793 RT: 12.92-13.06 AV: 7 NL: 9.75  
F: ITMS + c ESI Full ms2 409.18@cid40.00 [110.00-425.00]

b6 -1

b7C -1

1107-1201-69708-1117



FBI(20-cv-0545)-1497