

**Worklist: 2998**

<u>LAB_CASE</u>	<u>ITEM</u>	<u>TASK_ID</u>	<u>DESCRIPTION</u>
C2019-0262	1	143273	AM 28 Blood Multi-Drug Quant Panel 2 by LC-QC
C2019-0344	1	143272	AM 28 Blood Multi-Drug Quant Panel 2 by LC-QC



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1

# AM# 28: Multi-Drug Quantitation in Blood by LC-MS/MS

## Panel 2

Extraction Date: 2/27/19

Analyst: Britany Wylie

Plate lot#: 190124 (~~part EDP-111~~)

Plate Expiration: 7/24/19

Part IDP-112 *BW*

**Mobile phase A:** 5mM Amm Form + 0.01% FA  
0.5M Ammonium Hydroxide

**Mobile phase B:** 0.01% Formic Acid in MeOH  
Ethyl Acetate 20% Methanol in Water

**Blank Blood Lot:** 19A207P3

**Column:** Agilent 120 EC-C18 (2.1x 100-4um)

**LCMS-QQQ ID:** 62340

### Pre-Analytic:

- 1. Check levels of mobile phases and needle wash refill as needed. Ensure waste is not full.
- 2. Ensure correct column is installed and begin mobile phase flow allow to equilibrate ~ 30 minutes.
- 3. Create worklist:

### Analytic:

- 1. Remove standards, plate, controls, and samples from cold storage. Allow to reach room temperature.
- 2. Pipette **250µL blood (calibrated pipette) Pipette ID: 1926134** in wells of analytical (standards) plate.
- 3. Place on shaking incubator at ambient temp., 900rpm for 15 minutes. *Shaker ID: 66759*
- 4. Pipette **250µL 00.5M ammonium hydroxide** in wells of analytical plate.
- 5. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- 6. Transfer **300µL of blood+base** mixture to corresponding wells of SLE+ plate.
- 7. Apply positive pressure for approx. 10-15 seconds (or until no liquid remains on top of sorbent).  
*(Load at 85-100 PSI- Selector to the right) Manifold ID: 66792*
- 8. Wait 5 minutes.
- 9. Add **900uL ethyl acetate**.
- 10. Wait 5 minutes.
- 11. Apply positive pressure for approx. 15 seconds. *(10-15 PSI- Selector to the left)*.
- 12. Add **900uL ethyl acetate**.
- 13. Wait 5 minutes.
- 14. Apply positive pressure for approx. 15 seconds. *(10-15 PSI- Selector to the left)*.
- 15. Remove plate containing eluate. Place on SPE Dry and evaporate to dryness at approx. 35°C.  
*SPE Dry ID: 66819*
- 16. Reconstitute in **100µL 20% MeOH** and heat seal plate with foil. Place in autosampler and run worklist.

### Post-Analytic

- 1. Create batch and process data.  
Worklist path: 2019 Data\022819mdqr Batch Name: mdqp2a
- 2. Make necessary changes to integration limits
- 3. Integration linear and R<sup>2</sup> values ≥0.98 for each analyte.
- 4. For unknown samples and controls: response ratio within 20% of average of controls and standards, RT within +/- 5% (tramadol RT +/-2%), S/N for primary transition >10 and secondary transitions >5.
- 5. Did all QCs pass for each analyte? Yes, see comments Add Control data to QC tracking spreadsheet.
- 6. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports.

### COMMENTS:

*Evaluated: Doxepin, Paroxetine, Maprotiline, Amitriptyline, Nortriptyline and Chlordiazepoxide in this batch  
Curves limited: Amitriptyline 5-250; Maprotiline 5-500; Nortriptyline 5-250*

*BW*

Toxicology AM method 28 panel 2 external prep information

working solution 14706 ng/ml in meoh Doxepin, desipramine, chlordiazepoxide, paroxetine

Stock solution 1mg/ml 150 ul each in 9700 ul meOH

Ppd 8/8/18 Exp: 8/8/19 lot 8819 by AMN

Drug	lot	expiration
Doxepine	fn01281502	2/1/2020
Desipramine	fn10231502	10/1/2020
Chlordiazepoxide	fe07241502	8/1/2020
Paroxetine	fn05111505	6/1/2020

AM 28 control 50 ul working solution lot (8819) in 9950 ul blood lot (18G207D7)

ppd 8/8/18 Exp 8/8/19 by AMN Concentration 73.53 ng/ml each

# ISP FORENSICS - Cd'A Instrument # 62340

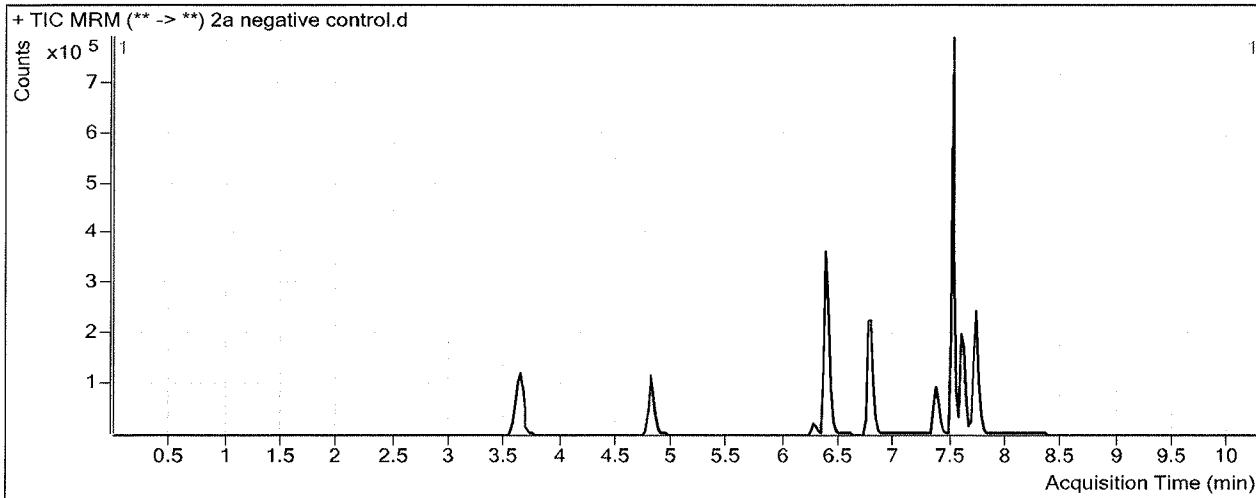
## Multi-Drug Confirmatory Analysis Report

**Batch Data Path** D:\2019 Data\AM 28\022819 mdqr\QuantResults\mdqp2a.batch.bin  
**Analysis Time** 3/4/2019 1:11 PM **Analyst Name** ISP Tox  
**Report Time** 3/4/2019 1:18 PM **Reporter Name** ISP Tox  
**Last Calib Update** 3/4/2019 1:11 PM **Batch State** Processed

### Analysis Info

**Acq Time** 2019-02-28 13:37 **Data File** 2a negative control.d  
**Sample Type** Sample **Sample Name** 2a negative control  
**Dilution** 1 **Acq Method** 2a MDQ Panel 618.m  
**Position** P2-E5 **Sample Info**  
**Inj Vol** -1 **Comment** AM 28 Panel 2

### Sample Chromatogram



### Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
Nortriptyline	Nortriptyline-D3	7.773	5132	97298	0.0527	3.1171 <S

# ISP FORENSICS - Cd'A Instrument # 62340

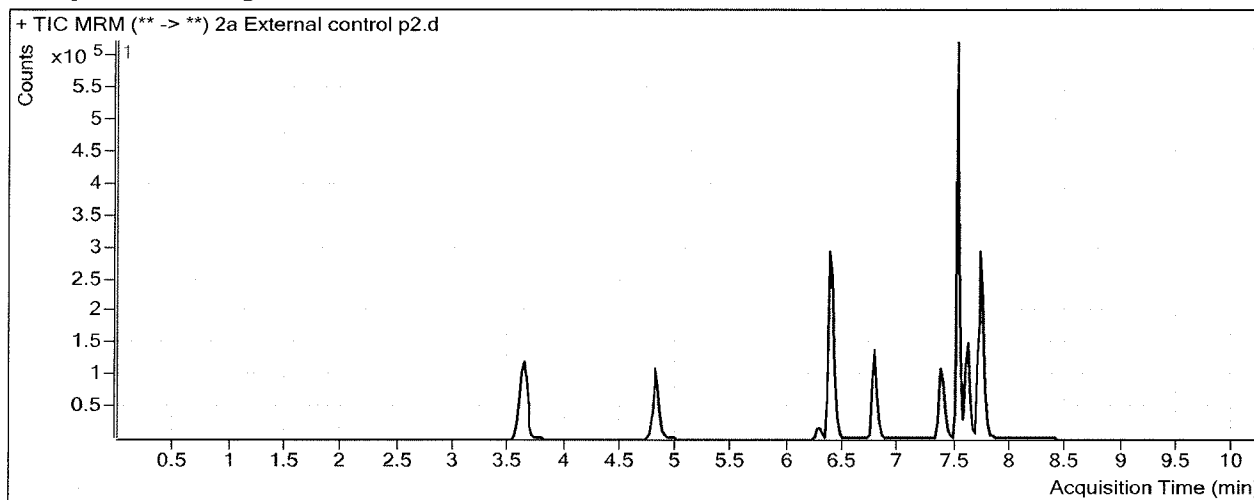
## Multi-Drug Confirmatory Analysis Report

<b>Batch Data Path</b>	D:\2019 Data\AM 28\022819 mdqr\QuantResults\mdqp2a.batch.bin		
<b>Analysis Time</b>	3/4/2019 1:11 PM	<b>Analyst Name</b>	ISP Tox
<b>Report Time</b>	3/4/2019 1:18 PM	<b>Reporter Name</b>	ISP Tox
<b>Last Calib Update</b>	3/4/2019 1:11 PM	<b>Batch State</b>	Processed

### Analysis Info

<b>Acq Time</b>	2019-02-28 13:50	<b>Data File</b>	2a External control p2.d
<b>Sample Type</b>	Sample	<b>Sample Name</b>	2a External control p2
<b>Dilution</b>	1	<b>Acq Method</b>	2a MDQ Panel 618.m
<b>Position</b>	P2-F5	<b>Sample Info</b>	
<b>Inj Vol</b>	-1	<b>Comment</b>	AM 28 mirtazapine 50ng, amitriptyline 50 ng - BW

### Sample Chromatogram



### Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
Doxepin	Doxepin-D3	7.367	151450	124106	1.2203	59.9258
Paroxetine	Doxepin-D3	7.501	20450	124106	0.1648	87.2935
Chlordiazepoxide	Chlordiazepoxide-D5	7.746	163706	211979	0.7723	71.7676

*BW*

# ISP FORENSICS - Cd'A Instrument # 62340

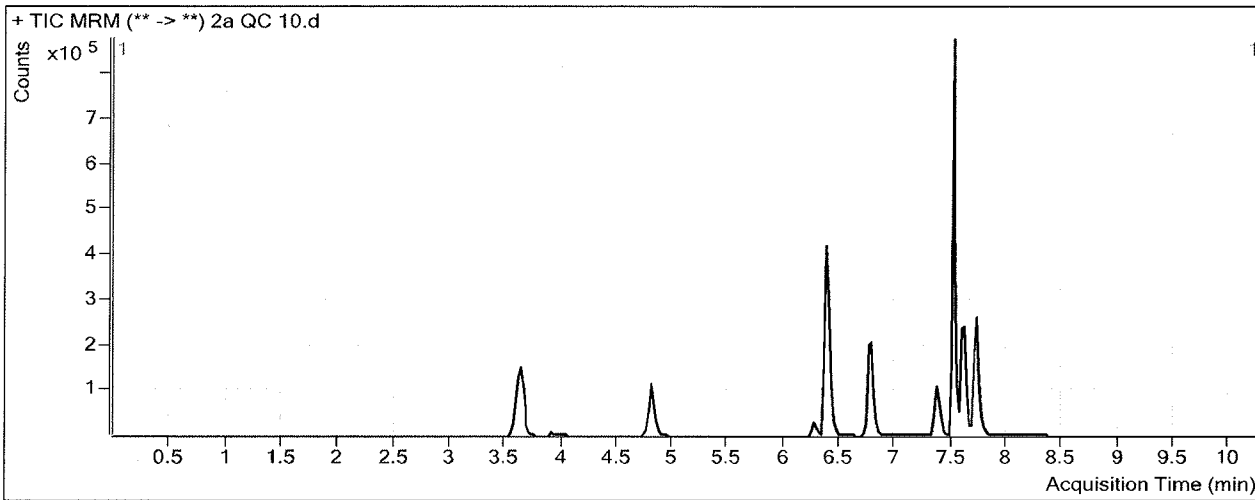
## Multi-Drug Confirmatory Analysis Report

**Batch Data Path** D:\2019 Data\AM 28\022819 mdqr\QuantResults\mdqp2a.batch.bin  
**Analysis Time** 3/4/2019 1:11 PM **Analyst Name** ISP Tox  
**Report Time** 3/4/2019 1:18 PM **Reporter Name** ISP Tox  
**Last Calib Update** 3/4/2019 1:11 PM **Batch State** Processed

### Analysis Info

**Acq Time** 2019-02-28 14:03 **Data File** 2a QC 10.d  
**Sample Type** QC **Sample Name** 2a QC 10  
**Dilution** 1 **Acq Method** 2a MDQ Panel 618.m  
**Position** P2-A5 **Sample Info**  
**Inj Vol** -1 **Comment** AM 28 Panel 2

### Sample Chromatogram



### Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
Doxepin	Doxepin-D3	7.367	44140	240911	0.1832	9.0601
Paroxetine	Doxepin-D3	7.501	6581	240911	0.0273	14.2378
Maprotiline	Amitriptyline-D3	7.589	11600	134346	0.0863	11.6066
Amitriptyline	Amitriptyline-D3	7.589	32575	134346	0.2425	9.7040
Nortriptyline	Nortriptyline-D3	7.613	20342	93727	0.2170	11.0402
Chlordiazepoxide	Chlordiazepoxide-D5	7.725	27421	232662	0.1179	11.0372

# ISP FORENSICS - Cd'A Instrument # 62340

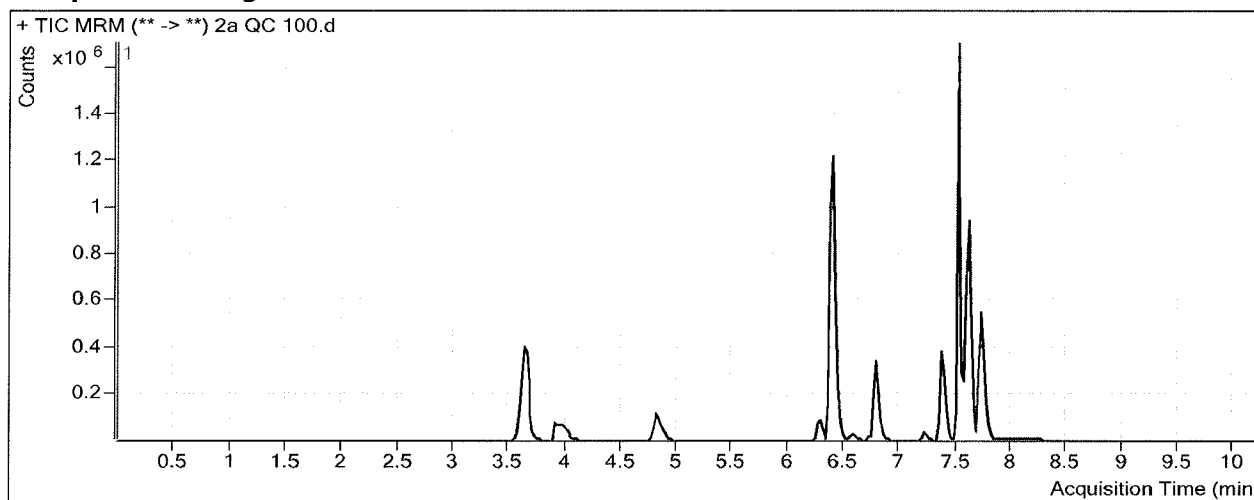
## Multi-Drug Confirmatory Analysis Report

<b>Batch Data Path</b>	D:\2019 Data\AM 28\022819 mdqr\QuantResults\mdqp2a.batch.bin		
<b>Analysis Time</b>	3/4/2019 1:11 PM	<b>Analyst Name</b>	ISP Tox
<b>Report Time</b>	3/4/2019 1:18 PM	<b>Reporter Name</b>	ISP Tox
<b>Last Calib Update</b>	3/4/2019 1:11 PM	<b>Batch State</b>	Processed

### Analysis Info

<b>Acq Time</b>	2019-02-28 15:06	<b>Data File</b>	2a QC 100.d
<b>Sample Type</b>	QC	<b>Sample Name</b>	2a QC 100
<b>Dilution</b>	1	<b>Acq Method</b>	2a MDQ Panel 618.m
<b>Position</b>	P2-B5	<b>Sample Info</b>	
<b>Inj Vol</b>	-1	<b>Comment</b>	AM 28 Panel 2

### Sample Chromatogram



### Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
Doxepin	Doxepin-D3	7.367	581463	304811	1.9076	93.6348
Paroxetine	Doxepin-D3	7.501	62754	304811	0.2059	109.1397
Maprotiline	Amitriptyline-D3	7.589	116792	152809	0.7643	105.0476
Amitriptyline	Amitriptyline-D3	7.589	377333	152809	2.4693	99.2378
Nortriptyline	Nortriptyline-D3	7.613	224626	102707	2.1871	106.0508
Chlordiazepoxide	Chlordiazepoxide-D5	7.746	242656	210948	1.1503	106.8502

# ISP FORENSICS - Cd'A Instrument # 62340

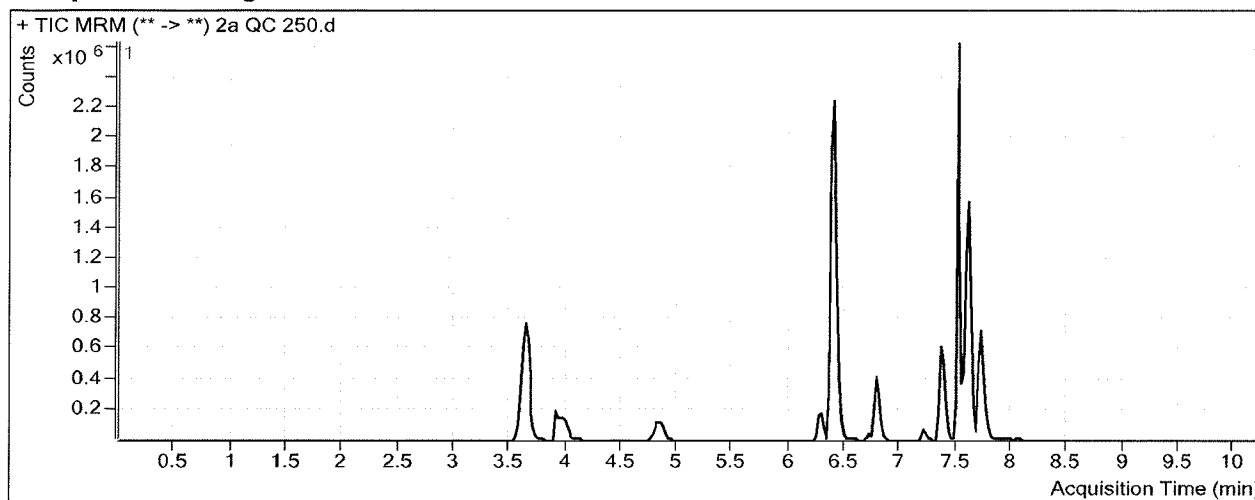
## Multi-Drug Confirmatory Analysis Report

**Batch Data Path** D:\2019 Data\AM 28\022819 mdqr\QuantResults\mdqp2a.batch.bin  
**Analysis Time** 3/4/2019 1:11 PM **Analyst Name** ISP Tox  
**Report Time** 3/4/2019 1:18 PM **Reporter Name** ISP Tox  
**Last Calib Update** 3/4/2019 1:11 PM **Batch State** Processed

### Analysis Info

**Acq Time** 2019-02-28 15:19 **Data File** 2a QC 250.d  
**Sample Type** QC **Sample Name** 2a QC 250  
**Dilution** 1 **Acq Method** 2a MDQ Panel 618.m  
**Position** P2-C5 **Sample Info**  
**Inj Vol** -1 **Comment** AM 28 Panel 2

### Sample Chromatogram



### Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
Doxepin	Doxepin-D3	7.367	1173089	237765	4.9338	242.0577
Paroxetine	Doxepin-D3	7.501	126368	237765	0.5315	282.1918
Maprotiline	Amitriptyline-D3	7.589	224797	129790	1.7320	238.4233
Amitriptyline	Amitriptyline-D3	7.589	760206	129790	5.8572	235.4529
Nortriptyline	Nortriptyline-D3	7.613	448486	73023	6.1417	296.7739
Chlordiazepoxide	Chlordiazepoxide-D5	7.746	351824	125166	2.8109	260.9513

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# ISP FORENSICS - Cd'A Instrument # 62340

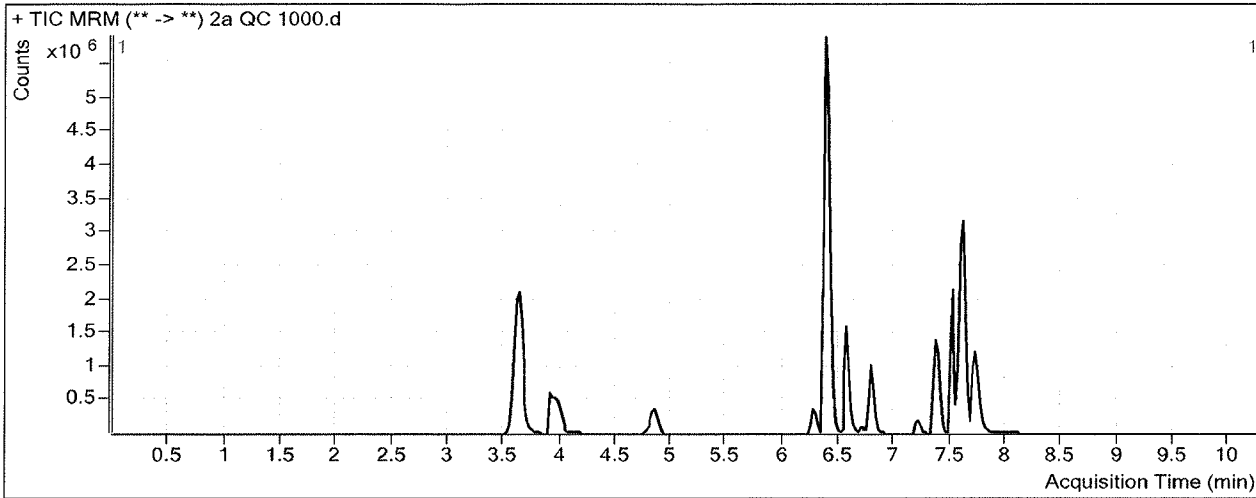
## Multi-Drug Confirmatory Analysis Report

<b>Batch Data Path</b>	D:\2019 Data\AM 28\022819 mdqr\QuantResults\mdqp2a.batch.bin		
<b>Analysis Time</b>	3/4/2019 1:11 PM	<b>Analyst Name</b>	ISP Tox
<b>Report Time</b>	3/4/2019 1:18 PM	<b>Reporter Name</b>	ISP Tox
<b>Last Calib Update</b>	3/4/2019 1:11 PM	<b>Batch State</b>	Processed

### Analysis Info

<b>Acq Time</b>	2019-02-28 15:32	<b>Data File</b>	2a QC 1000.d
<b>Sample Type</b>	QC	<b>Sample Name</b>	2a QC 1000
<b>Dilution</b>	1	<b>Acq Method</b>	2a MDQ Panel 618.m
<b>Position</b>	P2-D5	<b>Sample Info</b>	
<b>Inj Vol</b>	-1	<b>Comment</b>	AM 28 Panel 2

### Sample Chromatogram



### Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
Doxepin	Doxepin-D3	7.367	3080996	164157	18.7686	920.5979
Paroxetine	Doxepin-D3	7.501	302406	164157	1.8422	978.7979
<del>Maprotiline</del>	Amitriptyline-D3	7.589	495089	88324	5.6054	<del>772.2817</del> outside
<del>Amitriptyline</del>	Amitriptyline-D3	7.589	1985406	88324	22.4788	<del>903.7487</del> curve
<del>Nortriptyline</del>	Nortriptyline-D3	7.613	1214600	51249	23.6998	<del>1143.5672</del> range BW
Chlordiazepoxide	Chlordiazepoxide-D5	7.746	653419	54284	12.0370	1117.1533

*BW*

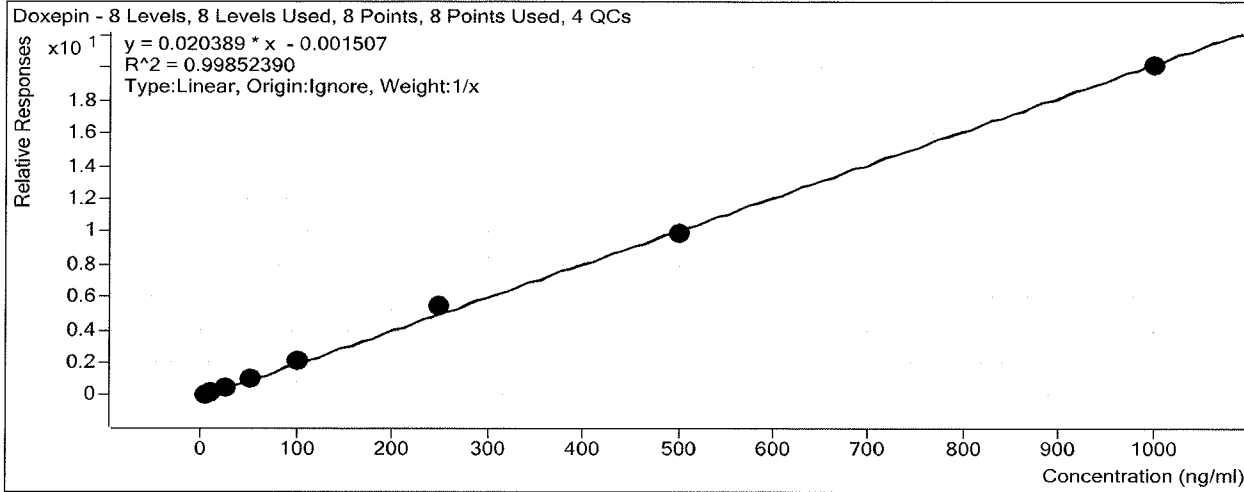
# ISP Forensics Calibration Curve Report

**Batch Data Path**  
**Last Calib Update**

D:\2019 Data\AM 28\022819 mdqr\QuantResults\mdqp2a.batch.bin  
3/4/2019 1:11 PM

**Analyst Name**                      ISP TOX

**Target Compound**            *Doxepin*  
**Internal Standard**            *Doxepin-D3*



Sample	Level	Enabled	Exp Conc	Final Conc	Accuracy
2a cal 1-5ng	1	<input checked="" type="checkbox"/>	5	5.0	99.5
2a cal 2-10ng	2	<input checked="" type="checkbox"/>	10	9.9	99.1
2a QC 10	2	<input checked="" type="checkbox"/>	10	9.1	90.6
2a cal 3-25ng	3	<input checked="" type="checkbox"/>	25	23.3	93.3
2a cal 4-50ng	4	<input checked="" type="checkbox"/>	50	48.5	97.1
2a cal 5-100ng	5	<input checked="" type="checkbox"/>	100	106.3	106.3
2a QC 100	5	<input checked="" type="checkbox"/>	100	93.6	93.6
2a cal 6-250ng	6	<input checked="" type="checkbox"/>	250	270.4	108.1
2a QC 250	6	<input checked="" type="checkbox"/>	250	242.1	96.8
2a cal 7-500ng	7	<input checked="" type="checkbox"/>	500	488.7	97.7
2a cal 8-1000ng	8	<input checked="" type="checkbox"/>	1000	987.9	98.8
2a QC 1000	8	<input checked="" type="checkbox"/>	1000	920.6	92.1

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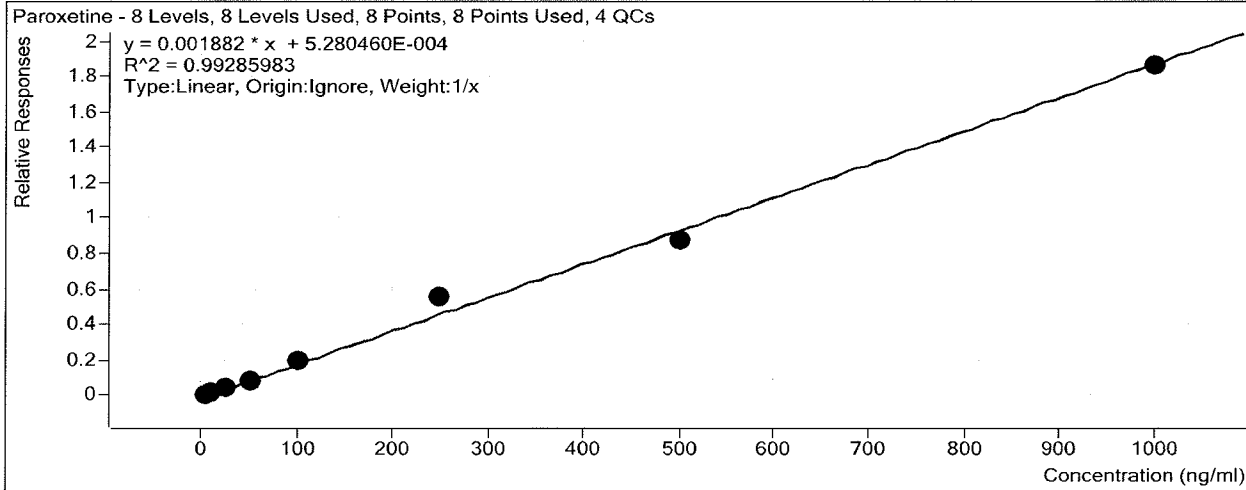
# ISP Forensics Calibration Curve Report

**Batch Data Path**  
**Last Calib Update**

D:\2019 Data\AM 28\022819 mdqr\QuantResults\mdqp2a.batch.bin  
3/4/2019 1:11 PM

**Analyst Name**                      ISP TOX

**Target Compound**                      *Paroxetine*  
**Internal Standard**                      *Doxepin-D3*



Sample	Level	Enabled	Exp Conc	Final Conc	Accuracy
2a cal 1-5ng	1	<input checked="" type="checkbox"/>	5	5.8	115.5
2a cal 2-10ng	2	<input checked="" type="checkbox"/>	10	9.1	90.7
2a QC 10	2	<input checked="" type="checkbox"/>	10	14.2	142.4
2a cal 3-25ng	3	<input checked="" type="checkbox"/>	25	22.3	89.1
2a cal 4-50ng	4	<input checked="" type="checkbox"/>	50	45.0	89.9
2a cal 5-100ng	5	<input checked="" type="checkbox"/>	100	102.9	102.9
2a QC 100	5	<input checked="" type="checkbox"/>	100	109.1	109.1
2a cal 6-250ng	6	<input checked="" type="checkbox"/>	250	298.6	119.4
2a QC 250	6	<input checked="" type="checkbox"/>	250	282.2	112.9
2a cal 7-500ng	7	<input checked="" type="checkbox"/>	500	467.9	93.6
2a cal 8-1000ng	8	<input checked="" type="checkbox"/>	1000	988.4	98.8
2a QC 1000	8	<input checked="" type="checkbox"/>	1000	978.8	97.9

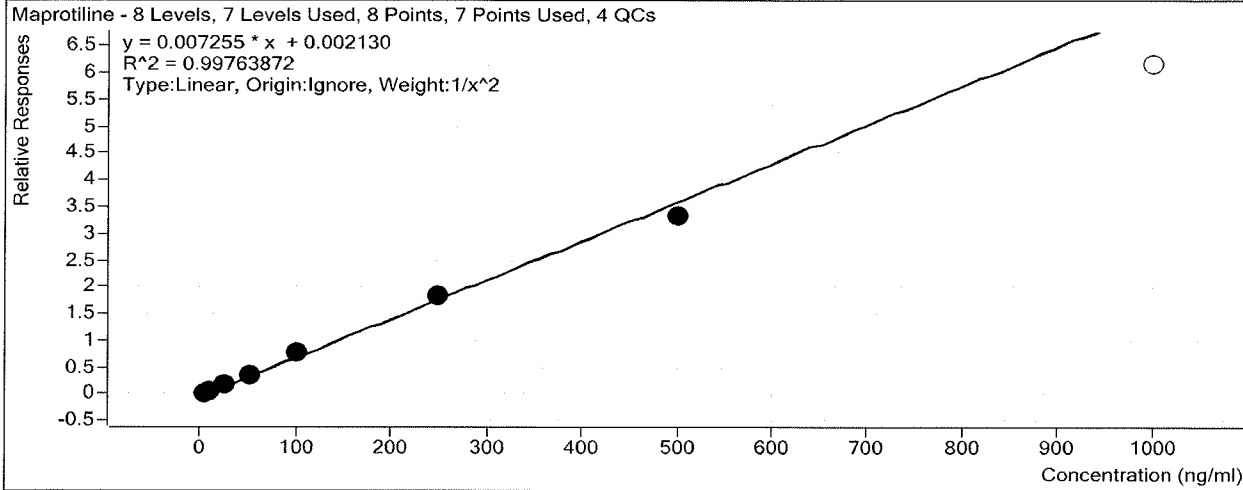
# ISP Forensics Calibration Curve Report

**Batch Data Path**  
**Last Calib Update**

D:\2019 Data\AM 28\022819 mdqr\QuantResults\mdqp2a.batch.bin  
3/4/2019 1:11 PM

**Analyst Name**                      ISP TOX

**Target Compound**                      *Maprotiline*  
*Internal Standard*                      *Amitriptyline-D3*



Sample	Level	Enabled	Exp Conc	Final Conc	Accuracy
2a cal 1-5ng	1	<input checked="" type="checkbox"/>	5	5.0	99.1
2a cal 2-10ng	2	<input checked="" type="checkbox"/>	10	10.0	100.3
2a QC 10	2	<input checked="" type="checkbox"/>	10	11.6	116.1
2a cal 3-25ng	3	<input checked="" type="checkbox"/>	25	25.9	103.5
2a cal 4-50ng	4	<input checked="" type="checkbox"/>	50	49.6	99.1
2a cal 5-100ng	5	<input checked="" type="checkbox"/>	100	105.0	105.0
2a QC 100	5	<input checked="" type="checkbox"/>	100	105.0	105.0
2a cal 6-250ng	6	<input checked="" type="checkbox"/>	250	252.3	100.9
2a QC 250	6	<input checked="" type="checkbox"/>	250	238.4	95.4
2a cal 7-500ng	7	<input checked="" type="checkbox"/>	500	460.7	92.1
2a cal 8-1000ng	8	<input type="checkbox"/>	1000	848.6	84.9
2a QC 1000	8	<input type="checkbox"/>	1000	772.3	77.2

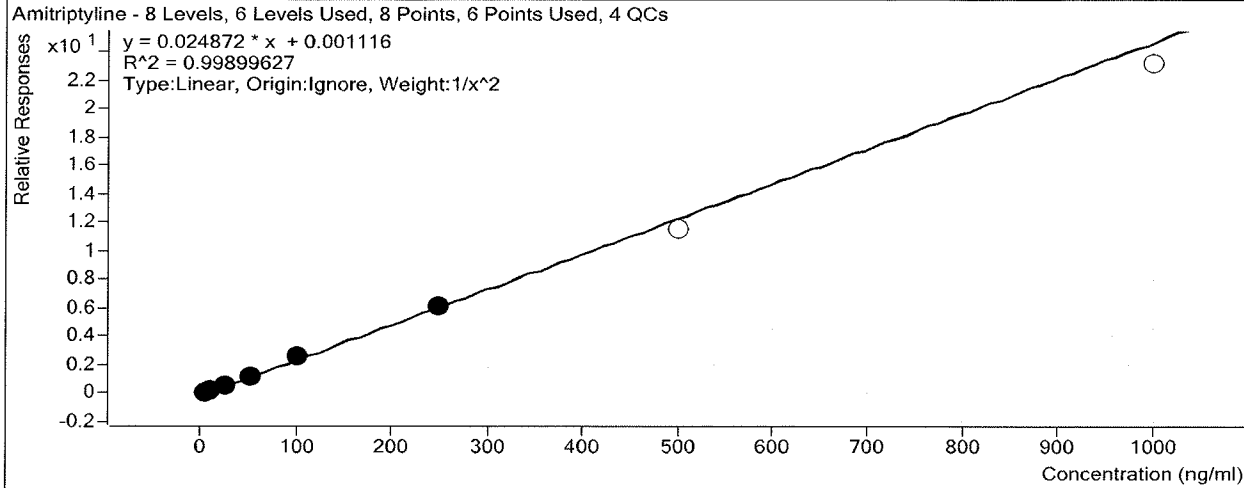
# ISP Forensics Calibration Curve Report

**Batch Data Path**  
**Last Calib Update**

D:\2019 Data\AM 28\022819 mdqr\QuantResults\mdqp2a.batch.bin  
3/4/2019 1:11 PM

**Analyst Name**                      ISP TOX

**Target Compound**                      *Amitriptyline*  
*Internal Standard*                      *Amitriptyline-D3*



Sample	Level	Enabled	Exp Conc	Final Conc	Accuracy
2a cal 1-5ng	1	<input checked="" type="checkbox"/>	5	5.0	100.7
2a cal 2-10ng	2	<input checked="" type="checkbox"/>	10	9.9	99.3
2a QC 10	2	<input checked="" type="checkbox"/>	10	9.7	97.0
2a cal 3-25ng	3	<input checked="" type="checkbox"/>	25	24.6	98.4
2a cal 4-50ng	4	<input checked="" type="checkbox"/>	50	48.8	97.7
2a cal 5-100ng	5	<input checked="" type="checkbox"/>	100	104.9	104.9
2a QC 100	5	<input checked="" type="checkbox"/>	100	99.2	99.2
2a cal 6-250ng	6	<input checked="" type="checkbox"/>	250	247.8	99.1
2a QC 250	6	<input checked="" type="checkbox"/>	250	235.5	94.2
2a cal 7-500ng	7	<input type="checkbox"/>	500	468.3	93.7
2a cal 8-1000ng	8	<input type="checkbox"/>	1000	932.9	93.3
2a QC 1000	8	<input type="checkbox"/>	1000	903.7	90.4

*DW*

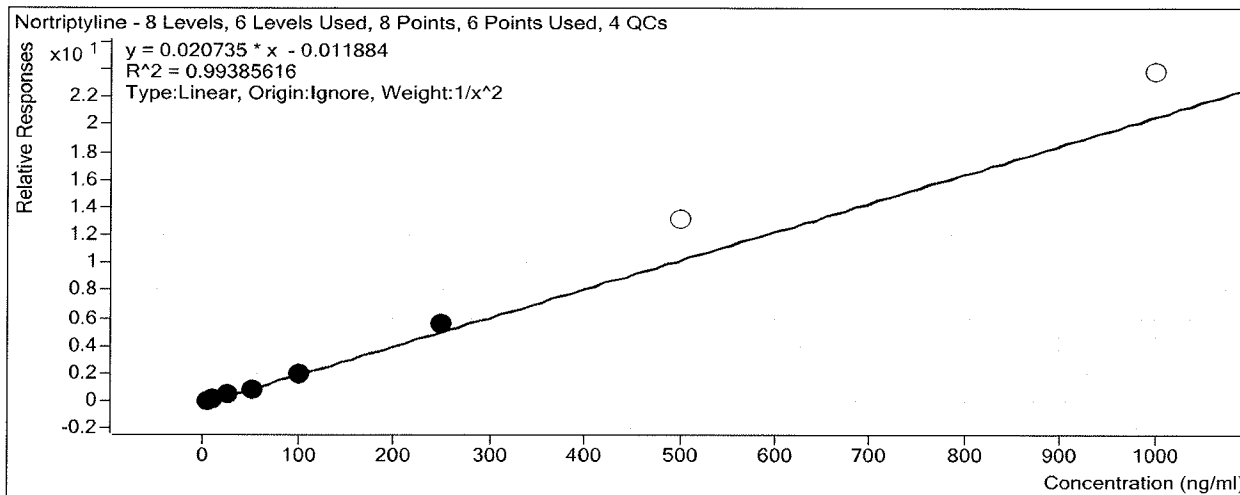
# ISP Forensics Calibration Curve Report

**Batch Data Path**  
**Last Calib Update**

D:\2019 Data\AM 28\022819 mdqr\QuantResults\mdqp2a.batch.bin  
3/4/2019 1:11 PM

**Analyst Name**                      ISP TOX

**Target Compound**            *Nortriptyline*  
**Internal Standard**            *Nortriptyline-D3*



Sample	Level	Enabled	Exp Conc	Final Conc	Accuracy
2a cal 1-5ng	1	<input checked="" type="checkbox"/>	5	4.9	98.9
2a cal 2-10ng	2	<input checked="" type="checkbox"/>	10	10.3	102.6
2a QC 10	2	<input checked="" type="checkbox"/>	10	11.0	110.4
2a cal 3-25ng	3	<input checked="" type="checkbox"/>	25	26.1	104.2
2a cal 4-50ng	4	<input checked="" type="checkbox"/>	50	44.6	89.3
2a cal 5-100ng	5	<input checked="" type="checkbox"/>	100	97.4	97.4
2a QC 100	5	<input checked="" type="checkbox"/>	100	106.1	106.1
2a cal 6-250ng	6	<input checked="" type="checkbox"/>	250	269.0	107.6
2a QC 250	6	<input checked="" type="checkbox"/>	250	296.8	118.7
2a cal 7-500ng	7	<input type="checkbox"/>	500	639.2	127.8
2a cal 8-1000ng	8	<input type="checkbox"/>	1000	1147.8	114.8
2a QC 1000	8	<input type="checkbox"/>	1000	1143.6	114.4

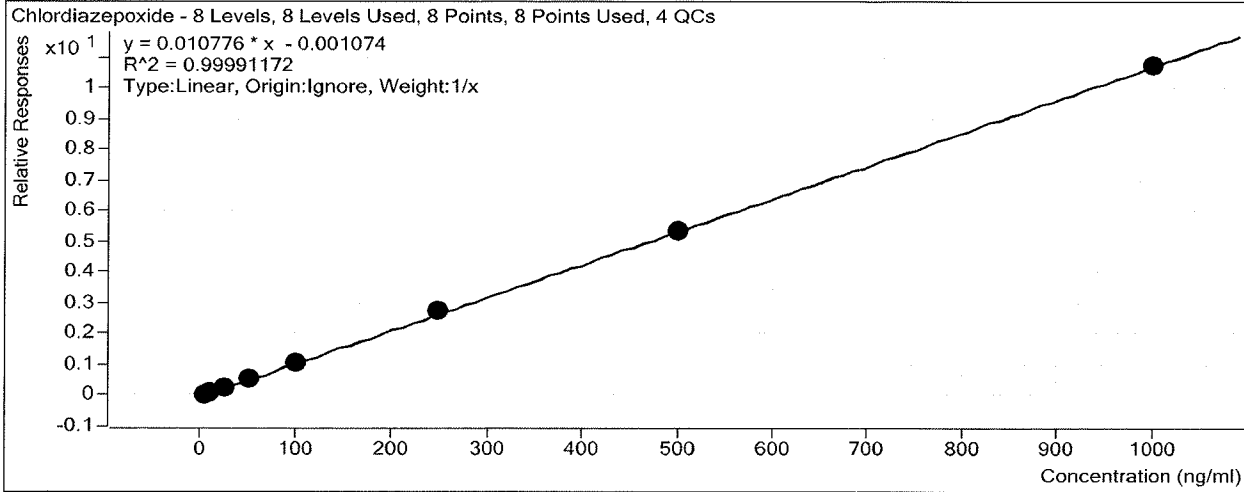
# ISP Forensics Calibration Curve Report

**Batch Data Path**  
**Last Calib Update**

D:\2019 Data\AM 28\022819 mdqr\QuantResults\mdqp2a.batch.bin  
3/4/2019 1:11 PM

**Analyst Name**                      ISP TOX

**Target Compound**                      *Chlordiazepoxide*  
**Internal Standard**                      *Chlordiazepoxide-D5*



Sample	Level	Enabled	Exp Conc	Final Conc	Accuracy
2a cal 1-5ng	1	<input checked="" type="checkbox"/>	5	4.9	98.7
2a cal 2-10ng	2	<input checked="" type="checkbox"/>	10	9.6	96.2
2a QC 10	2	<input checked="" type="checkbox"/>	10	11.0	110.4
2a cal 3-25ng	3	<input checked="" type="checkbox"/>	25	25.0	100.0
2a cal 4-50ng	4	<input checked="" type="checkbox"/>	50	51.4	102.9
2a cal 5-100ng	5	<input checked="" type="checkbox"/>	100	101.6	101.6
2a QC 100	5	<input checked="" type="checkbox"/>	100	106.9	106.9
2a cal 6-250ng	6	<input checked="" type="checkbox"/>	250	253.5	101.4
2a QC 250	6	<input checked="" type="checkbox"/>	250	261.0	104.4
2a cal 7-500ng	7	<input checked="" type="checkbox"/>	500	498.1	99.6
2a cal 8-1000ng	8	<input checked="" type="checkbox"/>	1000	995.7	99.6
2a QC 1000	8	<input checked="" type="checkbox"/>	1000	1117.2	111.7

# ISP FORENSICS - Cd'A Instrument # 62340

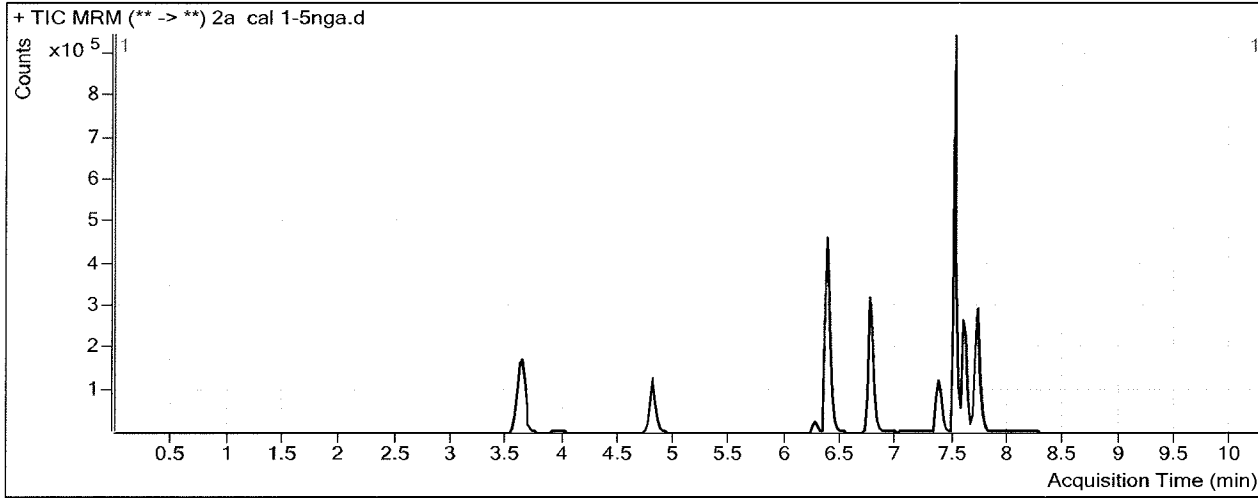
## Multi-Drug Confirmatory Analysis Report

**Batch Data Path** D:\2019 Data\AM 28\022819 mdqr\QuantResults\mdqp2a.batch.bin  
**Analysis Time** 3/4/2019 1:11 PM **Analyst Name** ISP Tox  
**Report Time** 3/4/2019 1:18 PM **Reporter Name** ISP Tox  
**Last Calib Update** 3/4/2019 1:11 PM **Batch State** Processed

### Analysis Info

**Acq Time** 2019-02-28 11:42 **Data File** 2a cal 1-5nga.d  
**Sample Type** Calibration **Sample Name** 2a cal 1-5ng  
**Dilution** 1 **Acq Method** 2a MDQ Panel 618.m  
**Position** P2-A4 **Sample Info**  
**Inj Vol** -1 **Comment** AM 28 Panel 2

### Sample Chromatogram



### Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
Doxepin	Doxepin-D3	7.367	36216	362591	0.0999	4.9726
Paroxetine	Doxepin-D3	7.501	4130	362591	0.0114	5.7729
Maprotiline	Amitriptyline-D3	7.589	6129	160996	0.0381	4.9533
Amitriptyline	Amitriptyline-D3	7.589	20341	160996	0.1263	5.0350
Nortriptyline	Nortriptyline-D3	7.613	10156	112047	0.0906	4.9445
Chlordiazepoxide	Chlordiazepoxide-D5	7.725	13463	258396	0.0521	4.9349



# ISP FORENSICS - Cd'A Instrument # 62340

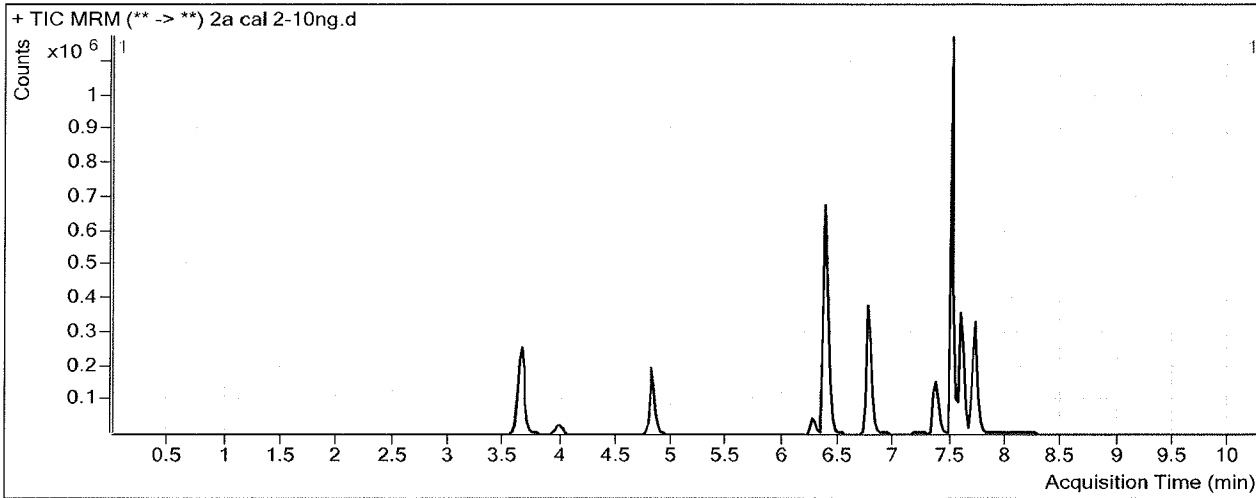
## Multi-Drug Confirmatory Analysis Report

**Batch Data Path** D:\2019 Data\AM 28\022819 mdqr\QuantResults\mdqp2a.batch.bin  
**Analysis Time** 3/4/2019 1:11 PM **Analyst Name** ISP Tox  
**Report Time** 3/4/2019 1:18 PM **Reporter Name** ISP Tox  
**Last Calib Update** 3/4/2019 1:11 PM **Batch State** Processed

### Analysis Info

**Acq Time** 2019-02-28 11:55 **Data File** 2a cal 2-10ng.d  
**Sample Type** Calibration **Sample Name** 2a cal 2-10ng  
**Dilution** 1 **Acq Method** 2a MDQ Panel 618.m  
**Position** P2-B4 **Sample Info**  
**Inj Vol** -1 **Comment** AM 28 Panel 2

### Sample Chromatogram



### Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
Doxepin	Doxepin-D3	7.367	79390	395726	0.2006	9.9134
Paroxetine	Doxepin-D3	7.501	6962	395726	0.0176	9.0692
Maprotiline	Amitriptyline-D3	7.569	13016	173836	0.0749	10.0265
Amitriptyline	Amitriptyline-D3	7.589	43110	173836	0.2480	9.9259
Nortriptyline	Nortriptyline-D3	7.613	22411	111541	0.2009	10.2633
Chlordiazepoxide	Chlordiazepoxide-D5	7.725	29809	290465	0.1026	9.6234

# ISP FORENSICS - Cd'A Instrument # 62340

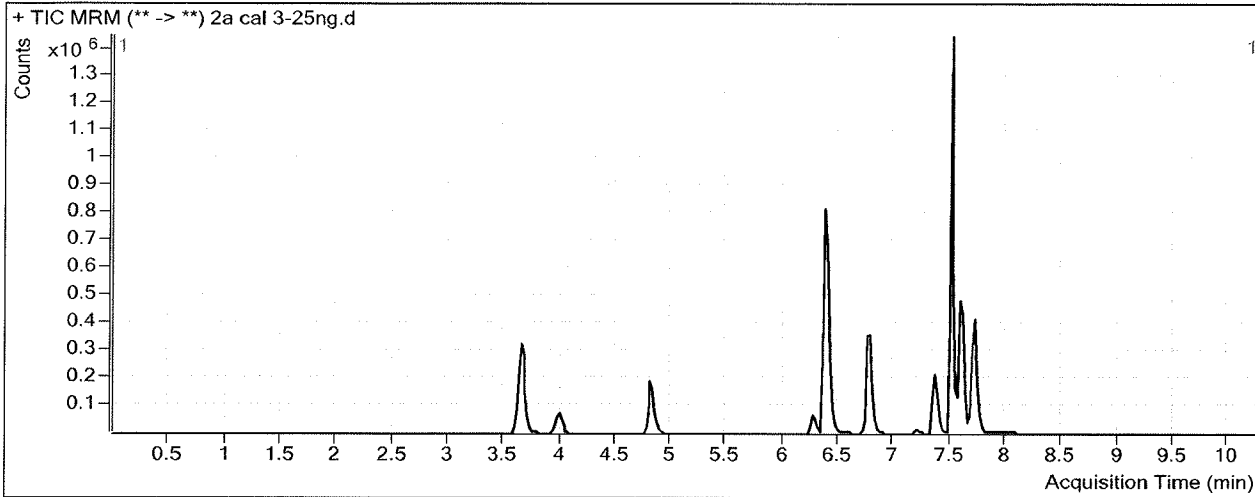
## Multi-Drug Confirmatory Analysis Report

**Batch Data Path** D:\2019 Data\AM 28\022819 mdqr\QuantResults\mdqp2a.batch.bin  
**Analysis Time** 3/4/2019 1:11 PM **Analyst Name** ISP Tox  
**Report Time** 3/4/2019 1:18 PM **Reporter Name** ISP Tox  
**Last Calib Update** 3/4/2019 1:11 PM **Batch State** Processed

### Analysis Info

**Acq Time** 2019-02-28 12:08 **Data File** 2a cal 3-25ng.d  
**Sample Type** Calibration **Sample Name** 2a cal 3-25ng  
**Dilution** 1 **Acq Method** 2a MDQ Panel 618.m  
**Position** P2-C4 **Sample Info**  
**Inj Vol** -1 **Comment** AM 28 Panel 2

### Sample Chromatogram



### Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
Doxepin	Doxepin-D3	7.367	191366	403473	0.4743	23.3362
Paroxetine	Doxepin-D3	7.501	17127	403473	0.0424	22.2796
Maprotiline	Amitriptyline-D3	7.569	32069	168900	0.1899	25.8757
Amitriptyline	Amitriptyline-D3	7.589	103507	168900	0.6128	24.5950
Nortriptyline	Nortriptyline-D3	7.613	57479	108787	0.5284	26.0552
Chlordiazepoxide	Chlordiazepoxide-D5	7.725	79444	296115	0.2683	24.9971

# ISP FORENSICS - Cd'A Instrument # 62340

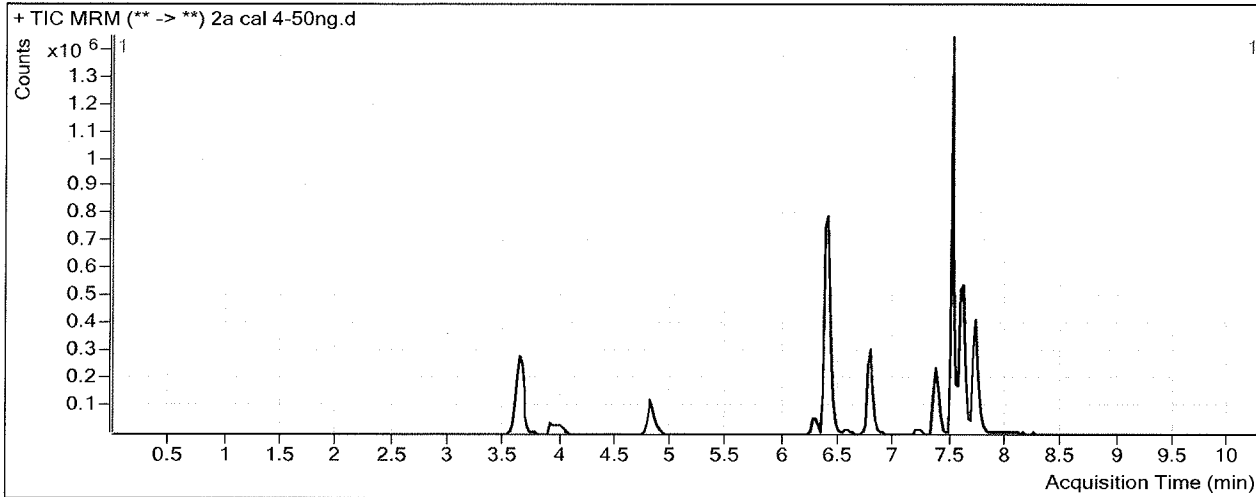
## Multi-Drug Confirmatory Analysis Report

<b>Batch Data Path</b>	D:\2019 Data\AM 28\022819 mdqr\QuantResults\mdqp2a.batch.bin		
<b>Analysis Time</b>	3/4/2019 1:11 PM	<b>Analyst Name</b>	ISP Tox
<b>Report Time</b>	3/4/2019 1:18 PM	<b>Reporter Name</b>	ISP Tox
<b>Last Calib Update</b>	3/4/2019 1:11 PM	<b>Batch State</b>	Processed

### Analysis Info

<b>Acq Time</b>	2019-02-28 12:20	<b>Data File</b>	2a cal 4-50ng.d
<b>Sample Type</b>	Calibration	<b>Sample Name</b>	2a cal 4-50ng
<b>Dilution</b>	1	<b>Acq Method</b>	2a MDQ Panel 618.m
<b>Position</b>	P2-D4	<b>Sample Info</b>	
<b>Inj Vol</b>	-1	<b>Comment</b>	AM 28 Panel 2

### Sample Chromatogram



### Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
Doxepin	Doxepin-D3	7.367	313015	316780	0.9881	48.5370
Paroxetine	Doxepin-D3	7.501	26963	316780	0.0851	44.9575
Maprotiline	Amitriptyline-D3	7.589	52775	145904	0.3617	49.5602
Amitriptyline	Amitriptyline-D3	7.589	177422	145904	1.2160	48.8472
Nortriptyline	Nortriptyline-D3	7.613	86969	95161	0.9139	44.6494
Chlordiazepoxide	Chlordiazepoxide-D5	7.725	117780	212915	0.5532	51.4354

# ISP FORENSICS - Cd'A Instrument # 62340

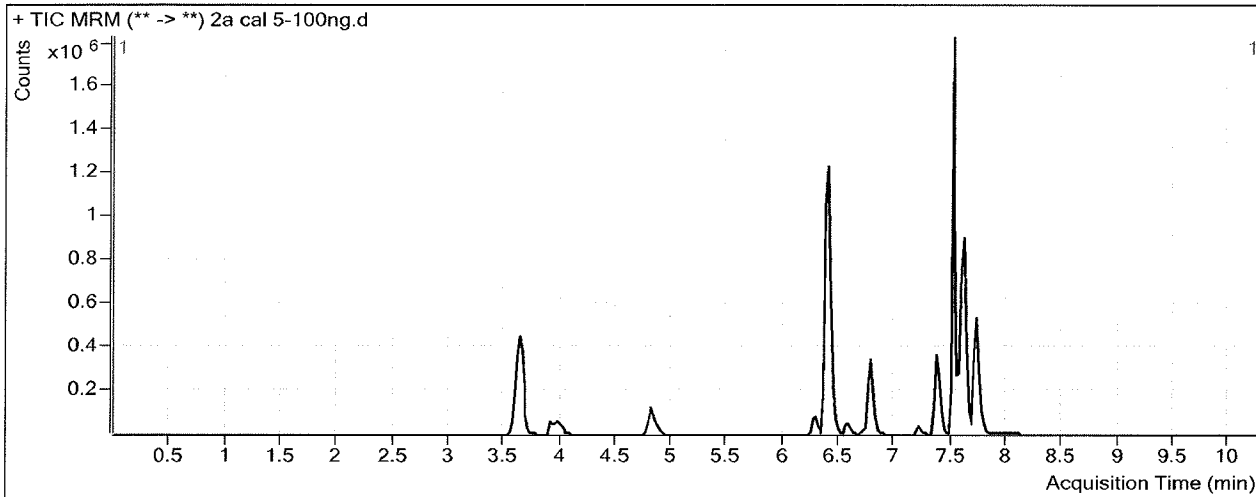
## Multi-Drug Confirmatory Analysis Report

**Batch Data Path** D:\2019 Data\AM 28\022819 mdqr\QuantResults\mdqp2a.batch.bin  
**Analysis Time** 3/4/2019 1:11 PM **Analyst Name** ISP Tox  
**Report Time** 3/4/2019 1:18 PM **Reporter Name** ISP Tox  
**Last Calib Update** 3/4/2019 1:11 PM **Batch State** Processed

### Analysis Info

**Acq Time** 2019-02-28 12:33 **Data File** 2a cal 5-100ng.d  
**Sample Type** Calibration **Sample Name** 2a cal 5-100ng  
**Dilution** 1 **Acq Method** 2a MDQ Panel 618.m  
**Position** P2-E4 **Sample Info**  
**Inj Vol** -1 **Comment** AM 28 Panel 2

### Sample Chromatogram



### Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
Doxepin	Doxepin-D3	7.367	613899	283376	2.1664	106.3257
Paroxetine	Doxepin-D3	7.501	55039	283376	0.1942	102.9471
Maprotiline	Amitriptyline-D3	7.589	107965	141326	0.7639	104.9989
Amitriptyline	Amitriptyline-D3	7.589	368716	141326	2.6090	104.8531
Nortriptyline	Nortriptyline-D3	7.613	187049	93195	2.0071	97.3699
Chlordiazepoxide	Chlordiazepoxide-D5	7.746	196477	179646	1.0937	101.5958

# ISP FORENSICS - Cd'A Instrument # 62340

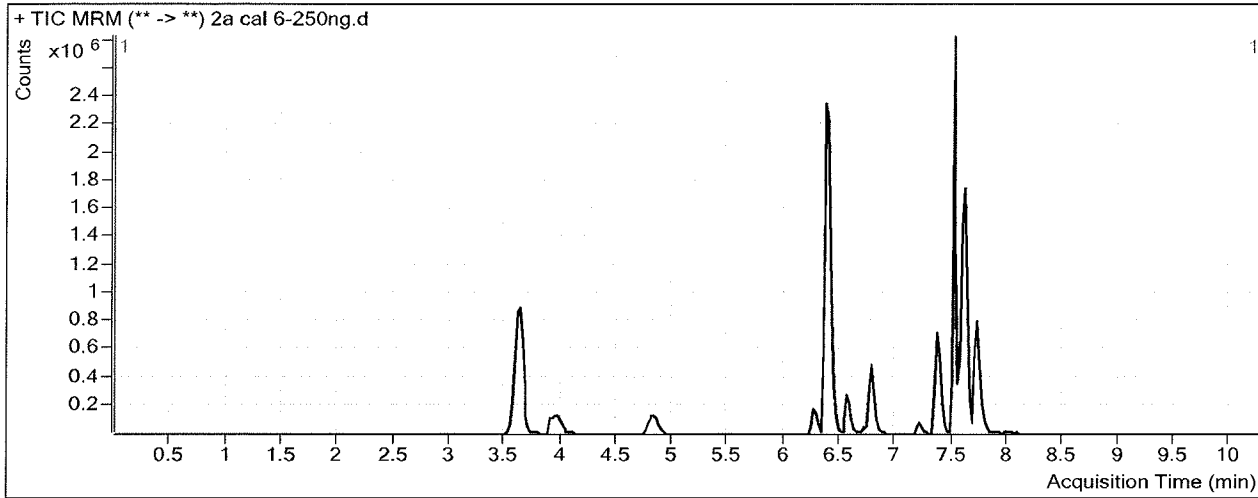
## Multi-Drug Confirmatory Analysis Report

<b>Batch Data Path</b>	D:\2019 Data\AM 28\022819 mdqr\QuantResults\mdqp2a.batch.bin		
<b>Analysis Time</b>	3/4/2019 1:11 PM	<b>Analyst Name</b>	ISP Tox
<b>Report Time</b>	3/4/2019 1:18 PM	<b>Reporter Name</b>	ISP Tox
<b>Last Calib Update</b>	3/4/2019 1:11 PM	<b>Batch State</b>	Processed

### Analysis Info

<b>Acq Time</b>	2019-02-28 12:46	<b>Data File</b>	2a cal 6-250ng.d
<b>Sample Type</b>	Calibration	<b>Sample Name</b>	2a cal 6-250ng
<b>Dilution</b>	1	<b>Acq Method</b>	2a MDQ Panel 618.m
<b>Position</b>	P2-F4	<b>Sample Info</b>	
<b>Inj Vol</b>	-1	<b>Comment</b>	AM 28 Panel 2

### Sample Chromatogram



### Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
Doxepin	Doxepin-D3	7.367	1455277	264069	5.5110	270.3646
Paroxetine	Doxepin-D3	7.501	148497	264069	0.5623	298.5918
Maprotiline	Amitriptyline-D3	7.589	262290	143144	1.8324	252.2543
Amitriptyline	Amitriptyline-D3	7.589	882323	143144	6.1639	247.7836
Nortriptyline	Nortriptyline-D3	7.613	484070	86982	5.5652	268.9700
Chlordiazepoxide	Chlordiazepoxide-D5	7.746	351840	128841	2.7308	253.5218

*ISP*

# ISP FORENSICS - Cd'A Instrument # 62340

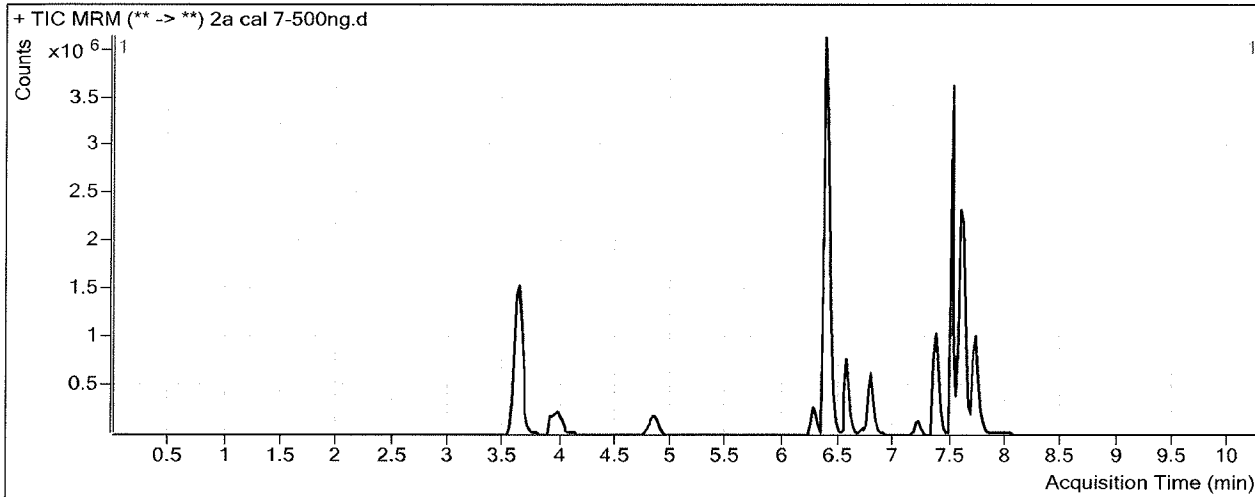
## Multi-Drug Confirmatory Analysis Report

**Batch Data Path** D:\2019 Data\AM 28\022819 mdqr\QuantResults\mdqp2a.batch.bin  
**Analysis Time** 3/4/2019 1:11 PM **Analyst Name** ISP Tox  
**Report Time** 3/4/2019 1:18 PM **Reporter Name** ISP Tox  
**Last Calib Update** 3/4/2019 1:11 PM **Batch State** Processed

### Analysis Info

**Acq Time** 2019-02-28 12:59 **Data File** 2a cal 7-500ng.d  
**Sample Type** Calibration **Sample Name** 2a cal 7-500ng  
**Dilution** 1 **Acq Method** 2a MDQ Panel 618.m  
**Position** P2-G4 **Sample Info**  
**Inj Vol** -1 **Comment** AM 28 Panel 2

### Sample Chromatogram



### Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
Doxepin	Doxepin-D3	7.367	2363483	237246	9.9622	488.6776
Paroxetine	Doxepin-D3	7.501	209011	237246	0.8810	467.9471
Maprotiline	Amitriptyline-D3	7.589	372224	111280	3.3449	460.7286
Amitriptyline	Amitriptyline-D3	7.589	1296234	111280	11.6484	468.2974
Nortriptyline	Nortriptyline-D3	7.613	777922	58746	13.2421	639.2131
Chlordiazepoxide	Chlordiazepoxide-D5	7.746	461032	85905	5.3668	498.1434

# ISP FORENSICS - Cd'A Instrument # 62340

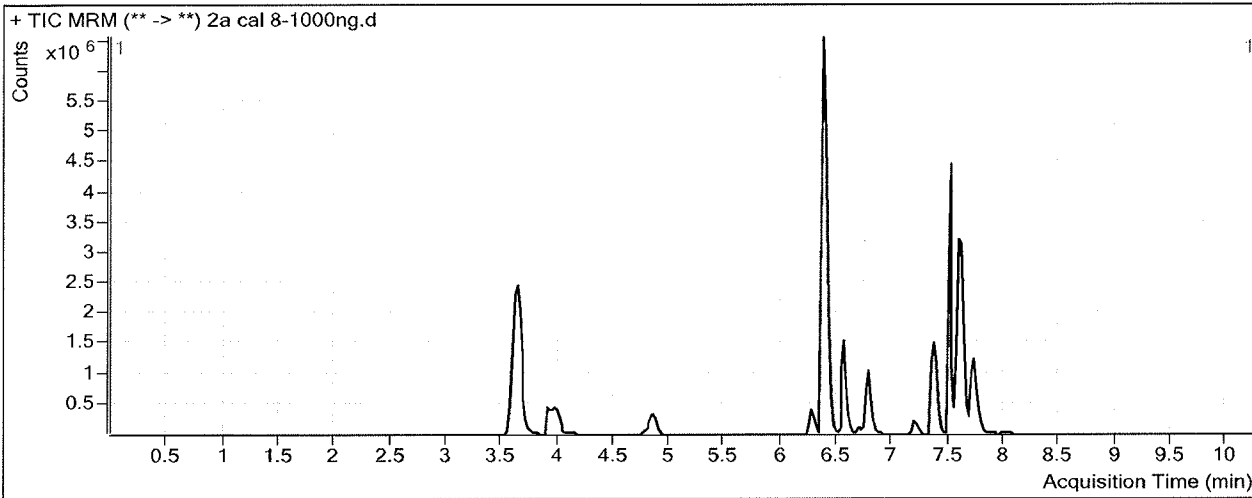
## Multi-Drug Confirmatory Analysis Report

**Batch Data Path** D:\2019 Data\AM 28\022819 mdqr\QuantResults\mdqp2a.batch.bin  
**Analysis Time** 3/4/2019 1:11 PM **Analyst Name** ISP Tox  
**Report Time** 3/4/2019 1:18 PM **Reporter Name** ISP Tox  
**Last Calib Update** 3/4/2019 1:11 PM **Batch State** Processed

### Analysis Info

**Acq Time** 2019-02-28 13:11 **Data File** 2a cal 8-1000ng.d  
**Sample Type** Calibration **Sample Name** 2a cal 8-1000ng  
**Dilution** 1 **Acq Method** 2a MDQ Panel 618.m  
**Position** P2-H4 **Sample Info**  
**Inj Vol** -1 **Comment** AM 28 Panel 2

### Sample Chromatogram



### Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
Doxepin	Doxepin-D3	7.367	3709591	184188	20.1403	987.8729
Paroxetine	Doxepin-D3	7.501	342645	184188	1.8603	988.4347
Maprotiline	Amitriptyline-D3	7.589	538063	87362	6.1590	848.5791
Amitriptyline	Amitriptyline-D3	7.589	2027166	87362	23.2041	932.9111
Nortriptyline	Nortriptyline-D3	7.613	1243602	52277	23.7885	1147.8454
Chlordiazepoxide	Chlordiazepoxide-D5	7.746	586793	54693	10.7288	995.7482

*ISP*