










REVIEWED  
By Brittany Wylie at 10:52 am, Oct 16, 2020

10/8/2020

**Worklist: 4563**

<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>	
C2020-1838	1	BCK	AM 28 Blood Multi-Drug Quant Panel 2 by LC-QQQ	
C2020-1851	1	BCK	AM 28 Blood Multi-Drug Quant Panel 2 by LC-QQQ	
C2020-1860	1	BCK	AM 28 Blood Multi-Drug Quant Panel 2 by LC-QQQ	
C2020-1934	1	BCK	AM 28 Blood Multi-Drug Quant Panel 2 by LC-QQQ	
C2020-1935	1	BCK	AM 28 Blood Multi-Drug Quant Panel 2 by LC-QQQ	
M2020-3179	1	BCK	AM 28 Blood Multi-Drug Quant Panel 2 by LC-QQQ	
M2020-3443	2	BCK	AM 28 Blood Multi-Drug Quant Panel 2 by LC-QQQ	
P2020-2537	1	BCK	AM 28 Blood Multi-Drug Quant Panel 2 by LC-QQQ	
P2020-2670	1	BCK	AM 28 Blood Multi-Drug Quant Panel 2 by LC-QQQ	

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

Extraction Date 10/8/20                      Analyst: Anne Nord  
Plate lot#: 20514      (part IDP-112)      Plate Expiration: 11-14-20

**Mobile phase A:** 5mM Amm Form + 0.01% FA      **Mobile phase B:** 0.01% Formic Acid in MeOH  
0.5M Ammonium Hydroxide                      Ethyl Acetate                      20% Methanol in Water

**Blank Blood Lot:** 20G20792      **Urine Blank lot:** no urine samples in this run

**Column:** Agilent 120 EC-C18 (2.1x 100-2.7um)

**LCMS-QQQ ID:** 69679

## 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. Urine hydrolysis pipette 250 ul urine in blank well, add 40 ul BG Turbo, add 100 ul 500 mm sodium phosphate buffer, mix for at least 5 minutes at ambient temperature. Pipette 250µL blood (calibrated pipette) Pipette ID: 1926134 or 250µL hydrolyzed urine in wells of analytical (standards) plate.
- 3. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- 4. Pipette 250µL 0.5M 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/urine+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.

## Post-Analytic

- 1. Create batch and process data.
- 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: *Compounds evaluated: Amitriptyline, clonazepam, doxepin, etizolam, flualprazolam, levamisole, Levetiracetam, methocarbamol, nortriptyline, zopiclone*

When the run was started the retention time shifted a little with the first three calibrator injections. These injections were not evaluated. The sample were re-injected after the system stabilized and evaluated.

	1	2	3	4	5	6	7	8	9	10	11	12
A	IS + Cal. 1	IS + QC_1		IS + Cal. 1	IS + QC_1	m3179		IS + Sample	IS + Cal. 8	IS + Sample	IS + Sample	IS + Cal. 8
B	IS + Cal. 2	IS + QC_2		IS + Cal. 2	IS + QC_2	c1934		IS + Sample	IS + Cal. 7	IS + Sample	IS + Sample	IS + Cal. 7
C	IS + Cal. 3	IS + QC_3		IS + Cal. 3	IS + QC_3	m3443-2		IS + Sample	IS + Cal. 6	IS + Sample	IS + Sample	IS + Cal. 6
D	IS + Cal. 4	IS + QC_4		IS + Cal. 4	IS + QC_4	p2670		IS + Sample	IS + Cal. 5	IS + Sample	IS + Sample	IS + Cal. 5
E	IS + Cal. 5			IS + Cal. 5	neg blood	p2537		IS + QC_4	IS + Cal. 4	IS + Sample	IS + QC_4	IS + Cal. 4
F	IS + Cal. 6			IS + Cal. 6	c1838	c1935		IS + QC_3	IS + Cal. 3	IS + Sample	IS + QC_3	IS + Cal. 3
G	IS + Cal. 7			IS + Cal. 7	c1851			IS + QC_2	IS + Cal. 2	IS + Sample	IS + QC_2	IS + Cal. 2
H	IS + Cal. 8			IS + Cal. 8	c1860			IS + QC_1	IS + Cal. 1	IS + Sample	IS + QC_1	IS + Cal. 1

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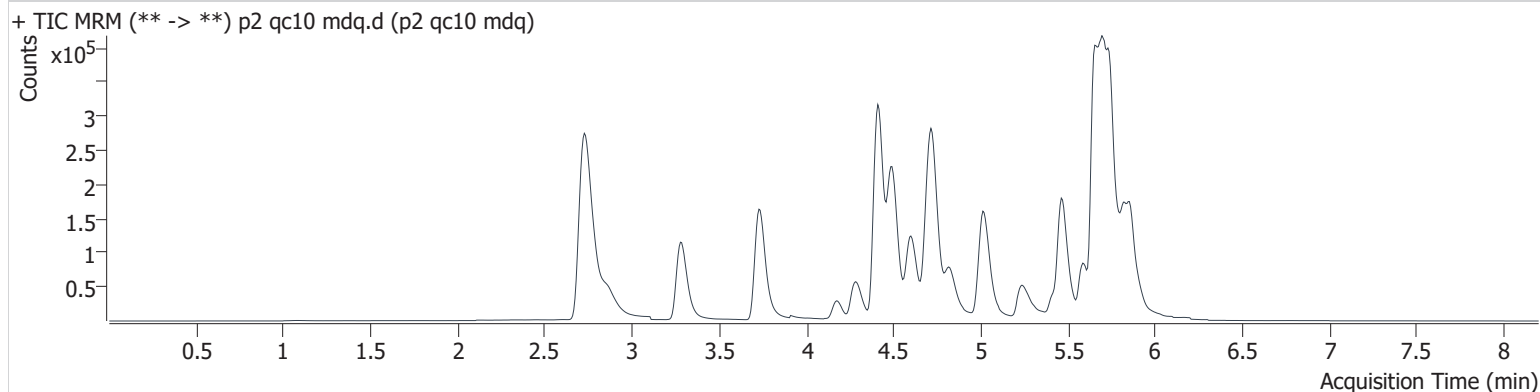
P2 plate map

# AM #28 Multi-Drug Quant. Results

**Batch results** D:\MassHunter\Data\2020 Data\am28 p2 100820\QuantResults\p2.batch.bin  
**Calibration Last Update** 10/9/2020 1:49:25 PM

<b>Instrument</b>	69679	<b>Data File</b>	p2 qc10 mdq.d
<b>Type</b>	QC	<b>Sample</b>	p2 qc10 mdq
<b>Acq. Method</b>	MDQP2 5-27-20.m	<b>Operator</b>	Anne Nord
<b>Sample Position</b>	P2-A5	<b>Comment</b>	
<b>Injection Volume</b>	2.5		
<b>Acq. Date-Time</b>	10/8/2020 5:54:22 PM		
<b>Sample Info.</b>			

## Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Amitriptyline	5.731	30921	394.3	99.1	93.5	104607	11.147 ng/ml
Clonazepam	5.610	44153	2843.9	34.5	2223.0	35253	10.739 ng/ml
Doxepin	5.463	39997	110.9	43.7	169.6	175265	10.490 ng/ml
Etizolam	5.843	29047	13665.3	23.3	6197.8	209465	10.210 ng/ml
Flualprazolam	5.748	20786	595.9	121.4	1788.3	209465	10.952 ng/ml
Levamisole	2.869	97474	2589.7	85.5	158.8	1169151	10.890 ng/ml
Levetiracetam	2.789	56461	481.1	160.9	659.6	339129	10.564 ng/ml
Methocarbamol	4.512	21463	34.9	82.8	34.7	995374	10.251 ng/ml
Nortriptyline	5.752	28744	363.0	30.1	620.5	86200	10.900 ng/ml
Zopiclone	4.285	40340	405.6	59.8	446.8	179445	10.422 ng/ml

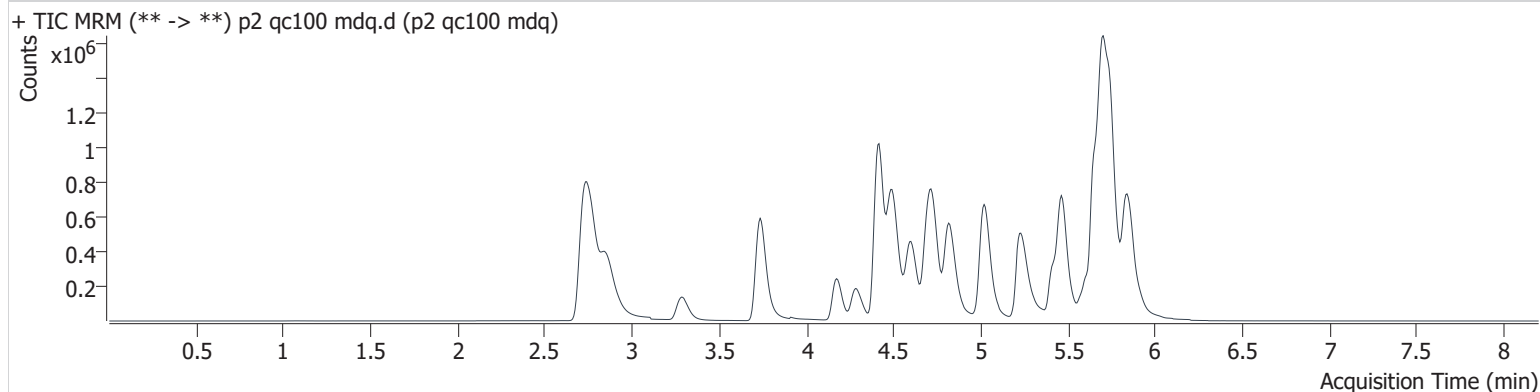
# AM #28 Multi-Drug Quant. Results

**Batch results** D:\MassHunter\Data\2020 Data\am28 p2 100820\QuantResults\p2.batch.bin  
**Calibration Last Update** 10/9/2020 1:49:25 PM

**Instrument** 69679  
**Type** QC  
**Acq. Method** MDQP2 5-27-20.m  
**Sample Position** P2-B5  
**Injection Volume** 2.5  
**Acq. Date-Time** 10/8/2020 6:05:11 PM  
**Sample Info.**

**Data File** p2 qc100 mdq.d  
**Sample** p2 qc100 mdq  
**Operator** Anne Nord  
**Comment**

## Sample Chromatogram



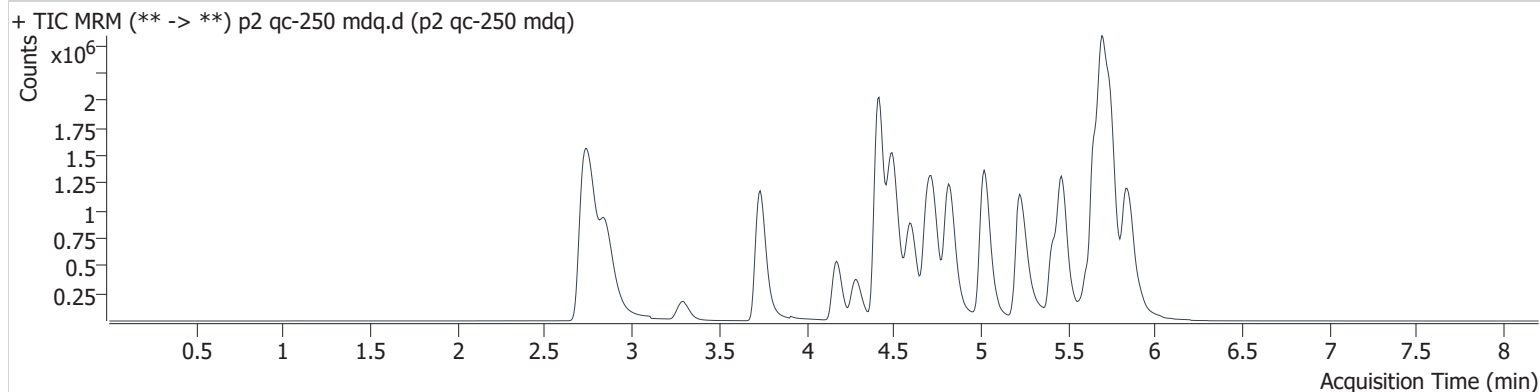
Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Amitriptyline	5.724	328458	3788.2	101.7	525.5	127714	102.698 ng/ml
Clonazepam	5.610	379132	11491.1	33.5	7662.2	32219	109.004 ng/ml
Doxepin	5.463	445109	1808.6	46.2	544.9	210336	102.994 ng/ml
Etizolam	5.843	238721	22429.8	22.8	17412.3	190012	97.913 ng/ml
Flualprazolam	5.748	164297	10808.4	127.7	6742.3	190012	101.557 ng/ml
Levamisole	2.856	971171	19594.5	83.9	8636.3	1136599	98.572 ng/ml
Levetiracetam	2.782	509688	2604.1	155.1	5460.6	327544	102.932 ng/ml
Methocarbamol	4.512	191217	3304.6	79.4	7196.7	863142	103.007 ng/ml
Nortriptyline	5.752	303583	2304.5	31.5	2797.9	101644	98.033 ng/ml
Zopiclone	4.285	379759	64755.5	60.8	17891.2	179526	98.263 ng/ml

# AM #28 Multi-Drug Quant. Results

**Batch results** D:\MassHunter\Data\2020 Data\am28 p2 100820\QuantResults\p2.batch.bin  
**Calibration Last Update** 10/9/2020 1:49:25 PM

<b>Instrument</b>	69679	<b>Data File</b>	p2 qc-250 mdq.d
<b>Type</b>	QC	<b>Sample</b>	p2 qc-250 mdq
<b>Acq. Method</b>	MDQP2 5-27-20.m	<b>Operator</b>	Anne Nord
<b>Sample Position</b>	P2-C5	<b>Comment</b>	
<b>Injection Volume</b>	2.5		
<b>Acq. Date-Time</b>	10/8/2020 6:16:01 PM		

## Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Amitriptyline	5.724	535804	7478.6	105.6	1377.7	74028	290.366 ng/ml
Clonazepam	5.610	835320	45463.5	33.1	72536.9	30984	250.982 ng/ml
Doxepin	5.456	827582	1597.8	46.3	3309.9	159692	253.226 ng/ml
Etizolam	5.843	492858	1752.6	22.9	78202.3	160748	239.916 ng/ml
Flualprazolam	5.748	335767	18519.5	127.6	8005.6	160748	246.455 ng/ml
Levamisole	2.849	2315663	43277.6	83.7	15915.2	1034283	256.003 ng/ml
Levetiracetam	2.782	1112188	5144.7	155.0	7959.9	294505	250.523 ng/ml
Methocarbamol	4.512	392227	5976.7	81.4	302.8	712314	255.659 ng/ml
Nortriptyline	5.752	436661	1533.6	31.1	3441.0	56724	252.752 ng/ml
Zopiclone	4.285	876074	95400.6	60.0	29766.8	163054	249.619 ng/ml

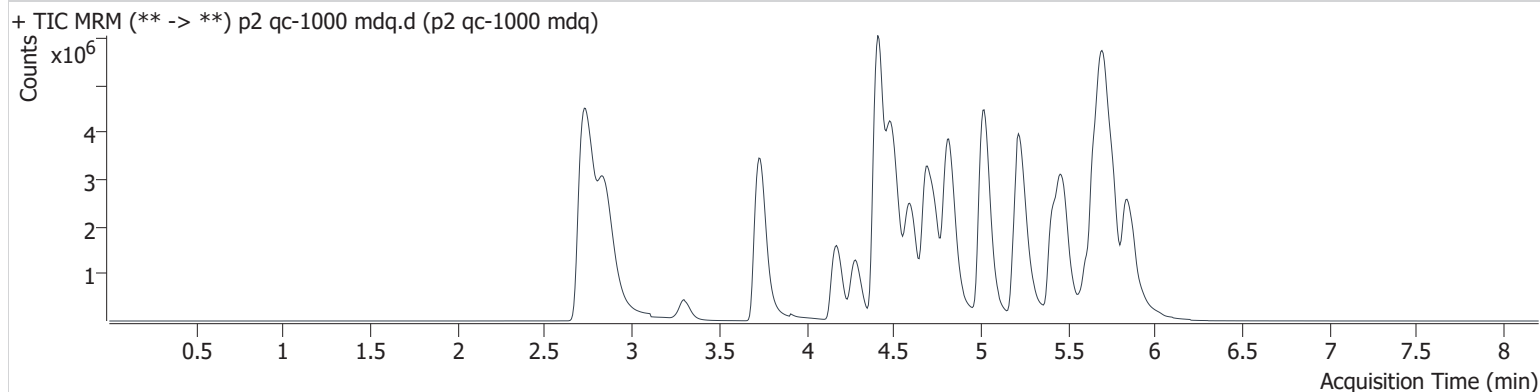
# AM #28 Multi-Drug Quant. Results

**Batch results** D:\MassHunter\Data\2020 Data\am28 p2 100820\QuantResults\p2.batch.bin  
**Calibration Last Update** 10/9/2020 1:49:25 PM

<b>Instrument</b>	69679	<b>Data File</b>	p2 qc-1000 mdq.d
<b>Type</b>	QC	<b>Sample</b>	p2 qc-1000 mdq
<b>Acq. Method</b>	MDQP2 5-27-20.m	<b>Operator</b>	Anne Nord
<b>Sample Position</b>	P2-D5	<b>Comment</b>	
<b>Injection Volume</b>	2.5		
<b>Acq. Date-Time</b>	10/8/2020 6:26:50 PM		

**Sample Info.**

## Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Amitriptyline	5.724	1518540	1670.2	113.6	1444.4	59267	1029.783 ng/ml
Clonazepam	5.610	2227238	41684.2	34.2	15123.9	25666	810.015 ng/ml
Doxepin	5.463	2865374	1130.9	50.0	23520.3	141207	993.543 ng/ml
Etizolam	5.850	1094939	8350.1	25.3	1271.9	110548	776.538 ng/ml
Flualprazolam	5.755	667142	13237.7	136.0	6201.9	110548	713.559 ng/ml
Levamisole	2.848	8763900	83165.6	83.8	37880.5	843565	1182.787 ng/ml
Levetiracetam	2.782	2569366	3797.5	153.5	28341.7	230576	740.201 ng/ml
Methocarbamol	4.526	821039	8162.5	83.4	29562.5	366339	1039.814 ng/ml
Nortriptyline	5.759	961889	16841.5	32.5	71348.1	30620	1031.574 ng/ml
Zopiclone	4.278	3201803	690.6	60.6	200672.4	149176	997.232 ng/ml

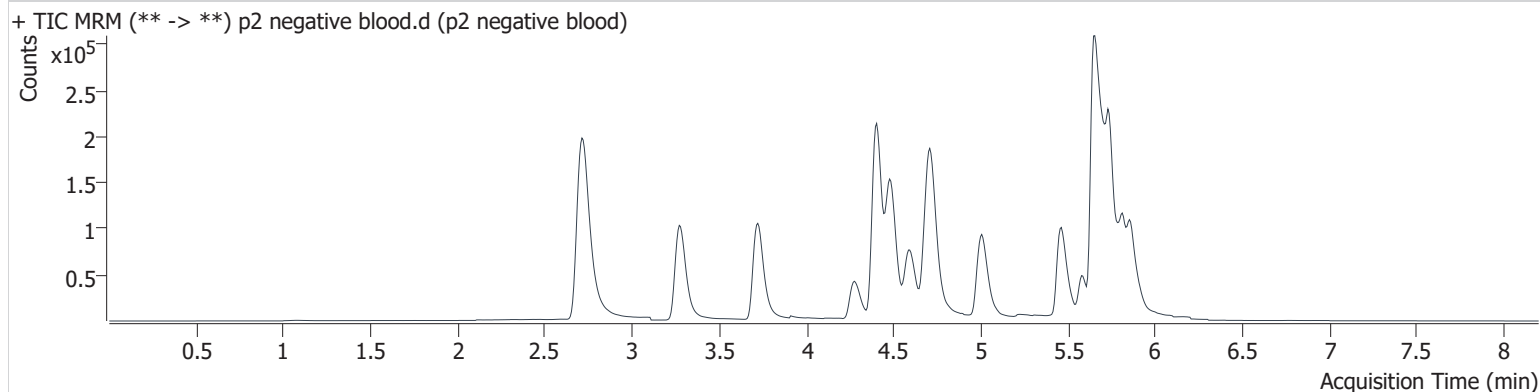
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# AM #28 Multi-Drug Quant. Results

**Batch results** D:\MassHunter\Data\2020 Data\am28 p2 100820\QuantResults\p2.batch.bin  
**Calibration Last Update** 10/9/2020 1:49:25 PM

<b>Instrument</b>	69679	<b>Data File</b>	p2 negative blood.d
<b>Type</b>	Sample	<b>Sample</b>	p2 negative blood
<b>Acq. Method</b>	MDQP2 5-27-20.m	<b>Operator</b>	Anne Nord
<b>Sample Position</b>	P2-E5	<b>Comment</b>	
<b>Injection Volume</b>	2.5		
<b>Acq. Date-Time</b>	10/8/2020 6:59:00 PM		
<b>Sample Info.</b>			

## Sample Chromatogram

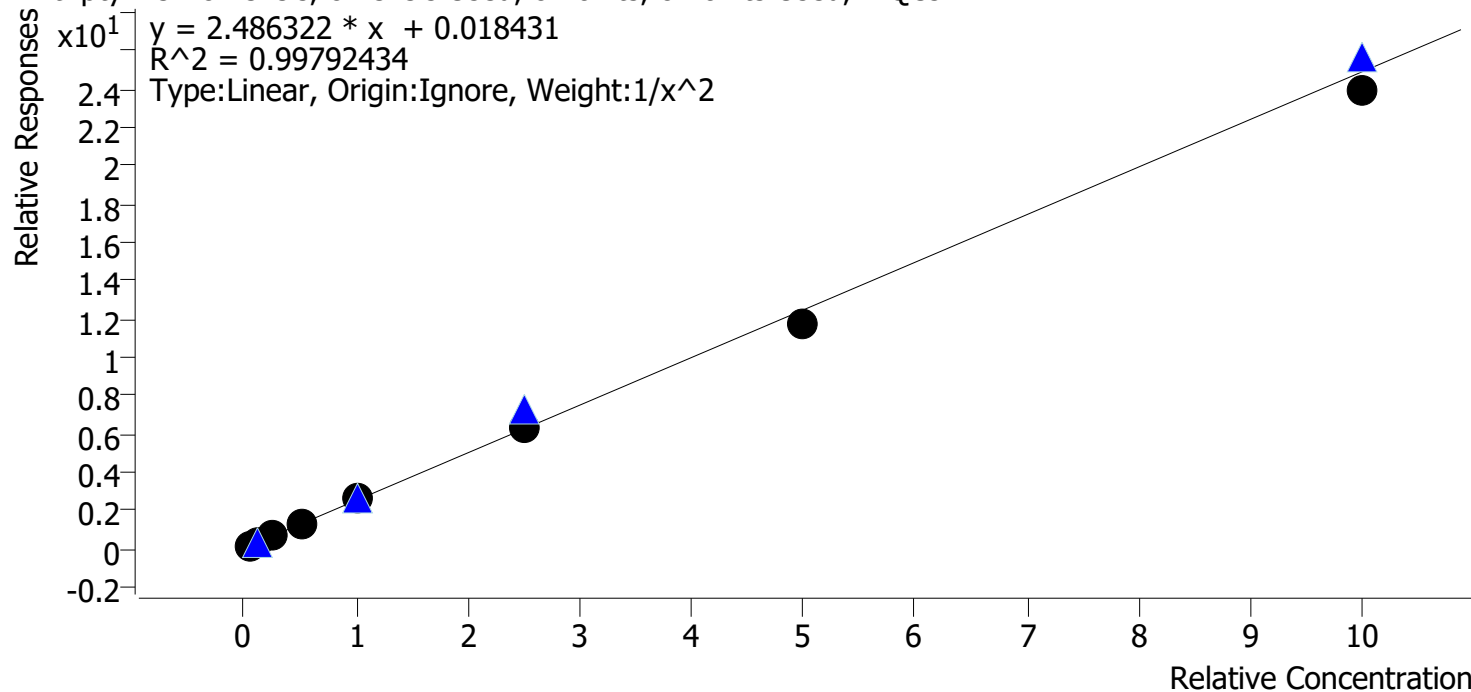




# Compound Calibration Report

**Batch results** D:\MassHunter\Data\2020 Data\am28 p2 100820\QuantResults\p2.batch.bin  
**Last Cal. Update** 10/9/2020 1:49 PM  
**Analyst Name** ISP\datastor  
**Analyte** Amitriptyline **Internal Standard** Amitriptyline-D3

Amitriptyline - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs

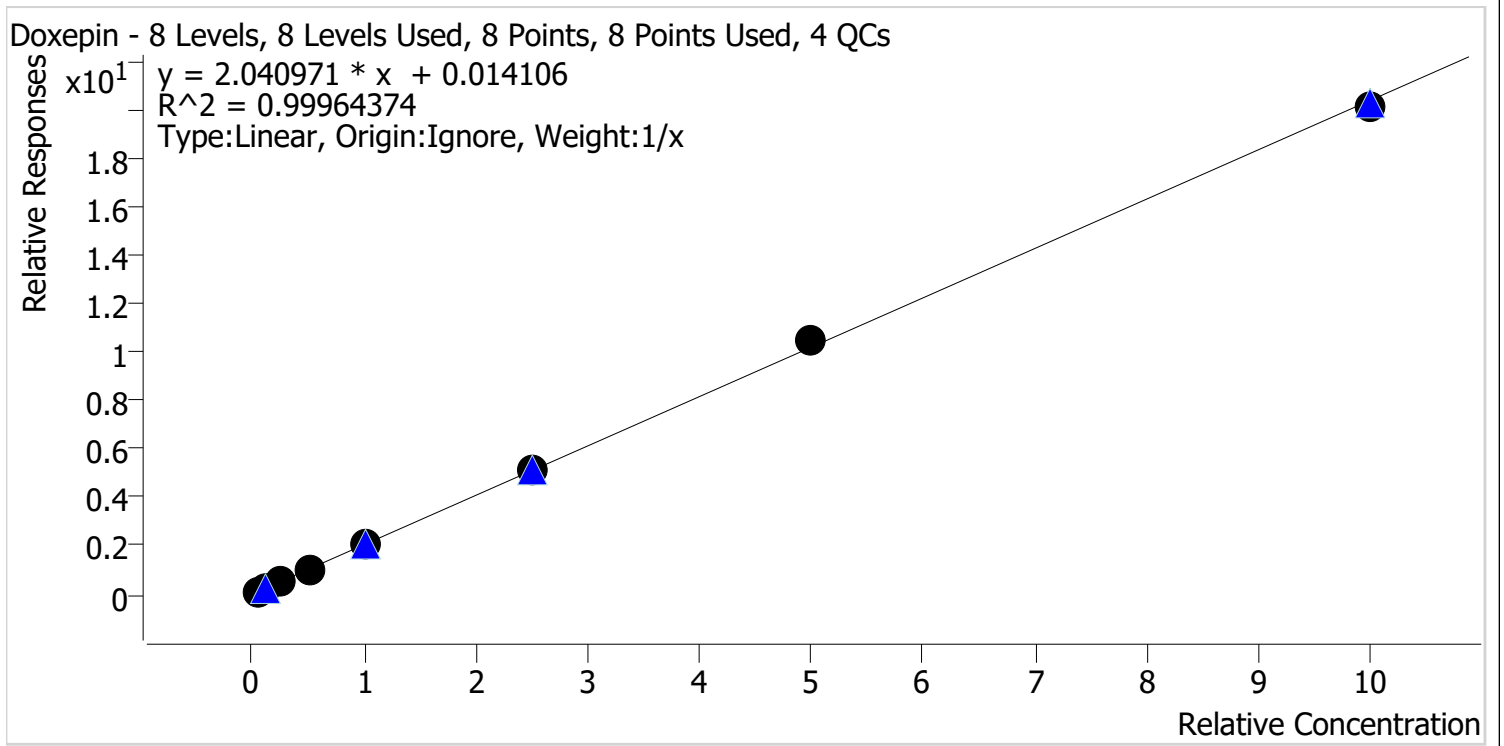


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
p2 cal 1 mdq	1	✓	5.0	4.8	96.8
p2 cal 2 mdq	2	✓	10.0	10.4	104.3
p2 cal 3 mdq	3	✓	25.0	25.8	103.0
p2 cal 4 mdq	4	✓	50.0	52.0	104.1
p2 cal 5 mdq	5	✓	100.0	101.4	101.4
p2 cal 6 mdq	6	✓	250.0	251.1	100.4
p2 cal 7 mdq	7	✓	500.0	470.1	94.0
p2 cal 8 mdq	8	✓	1000.0	958.4	95.8

# Compound Calibration Report



**Batch results** D:\MassHunter\Data\2020 Data\am28 p2 100820\QuantResults\p2.batch.bin  
**Last Cal. Update** 10/9/2020 1:49 PM  
**Analyst Name** ISP\datastor  
**Analyte** Doxepin **Internal Standard** Doxepin-D3



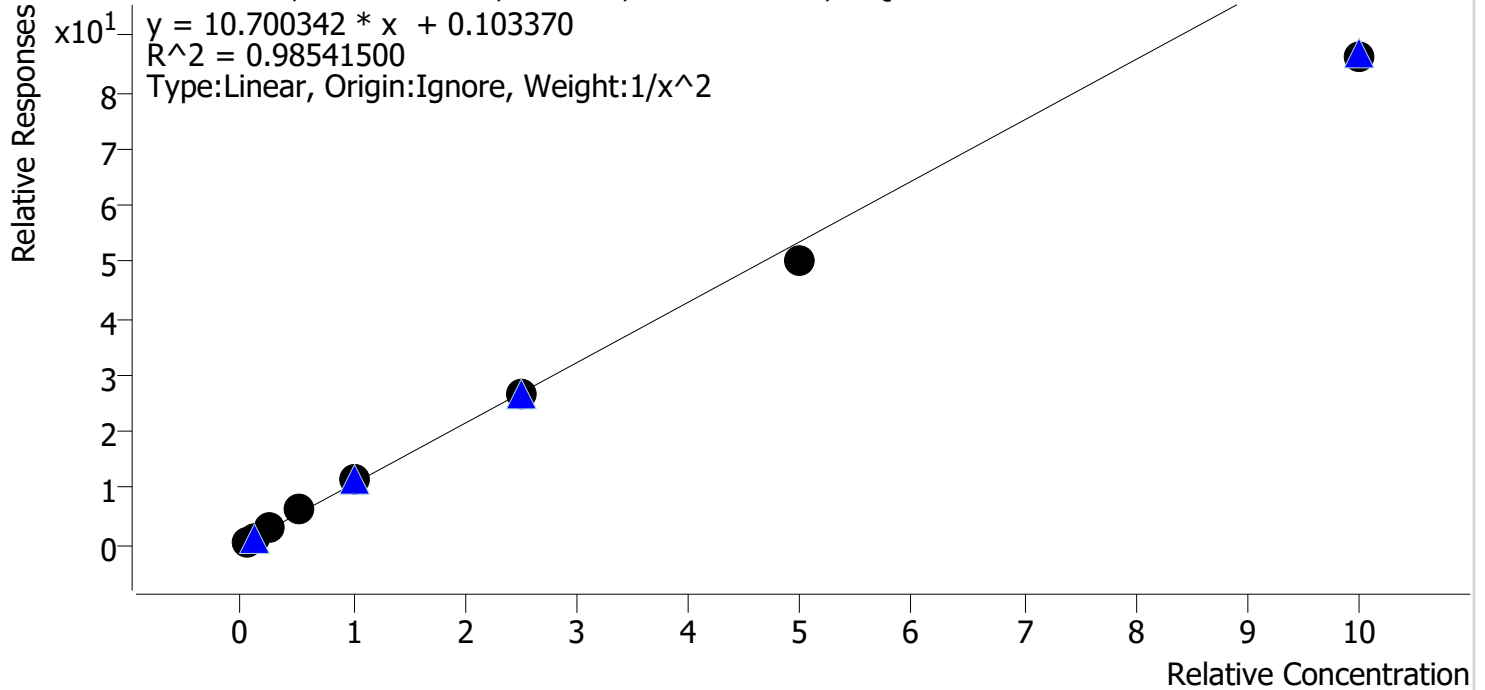
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
p2 cal 1 mdq	1	✓	5.0	4.6	92.3
p2 cal 2 mdq	2	✓	10.0	10.5	104.5
p2 cal 3 mdq	3	✓	25.0	25.4	101.7
p2 cal 4 mdq	4	✓	50.0	50.2	100.4
p2 cal 5 mdq	5	✓	100.0	99.4	99.4
p2 cal 6 mdq	6	✓	250.0	251.2	100.5
p2 cal 7 mdq	7	✓	500.0	513.2	102.6
p2 cal 8 mdq	8	✓	1000.0	985.4	98.5

# Compound Calibration Report



<b>Batch results</b>	D:\MassHunter\Data\2020 Data\am28 p2 100820\QuantResults\p2.batch.bin		
<b>Last Cal. Update</b>	10/9/2020 1:49 PM		
<b>Analyst Name</b>	ISP\datastor		
<b>Analyte</b>	Clonazolam	<b>Internal Standard</b>	Phenazepam-D4

Clonazolam - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



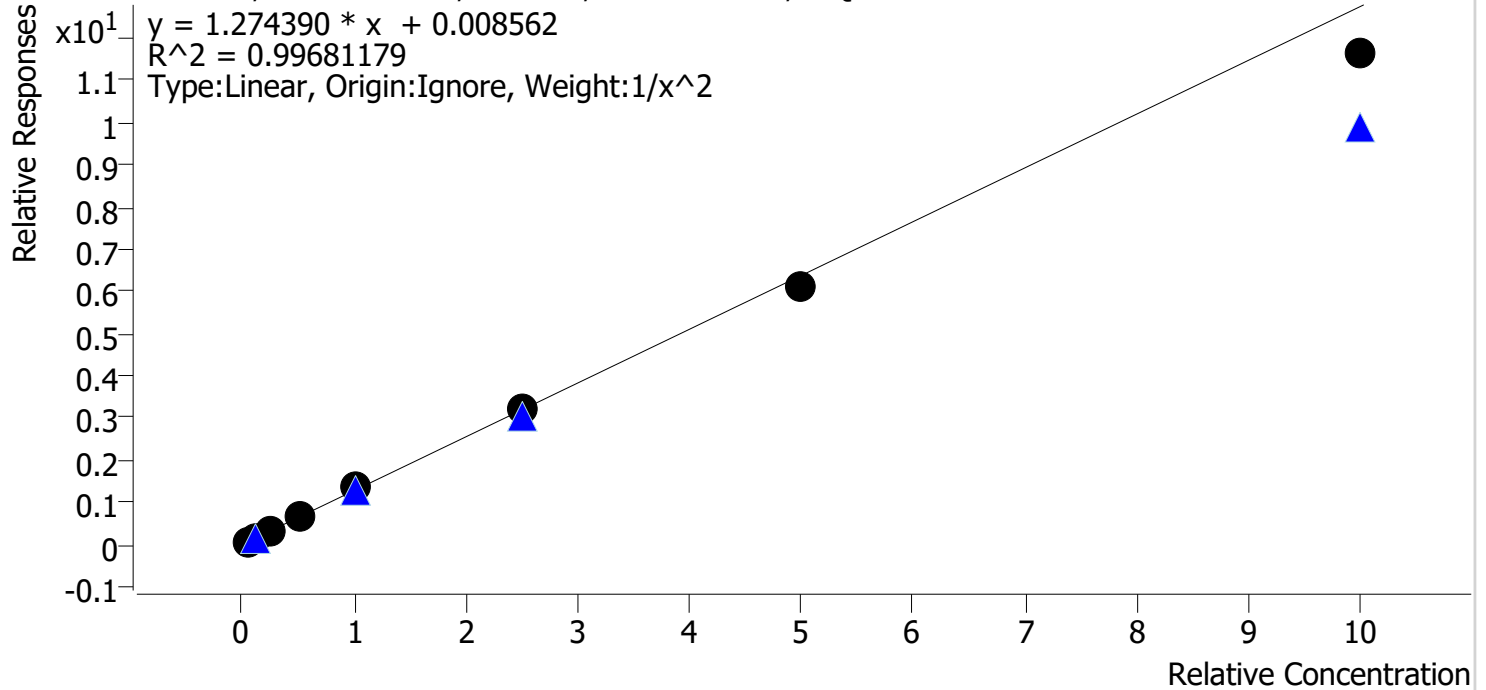
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
p2 cal 1 mdq	1	✓	5.0	4.6	92.5
p2 cal 2 mdq	2	✓	10.0	11.0	109.6
p2 cal 3 mdq	3	✓	25.0	26.7	106.9
p2 cal 4 mdq	4	✓	50.0	56.1	112.1
p2 cal 5 mdq	5	✓	100.0	105.1	105.1
p2 cal 6 mdq	6	✓	250.0	247.9	99.2
p2 cal 7 mdq	7	✓	500.0	469.4	93.9
p2 cal 8 mdq	8	✓	1000.0	806.9	80.7

# Compound Calibration Report



**Batch results** D:\MassHunter\Data\2020 Data\am28 p2 100820\QuantResults\p2.batch.bin  
**Last Cal. Update** 10/9/2020 1:49 PM  
**Analyst Name** ISP\datastor  
**Analyte** Etizolam **Internal Standard** Midazolam-D4

Etizolam - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



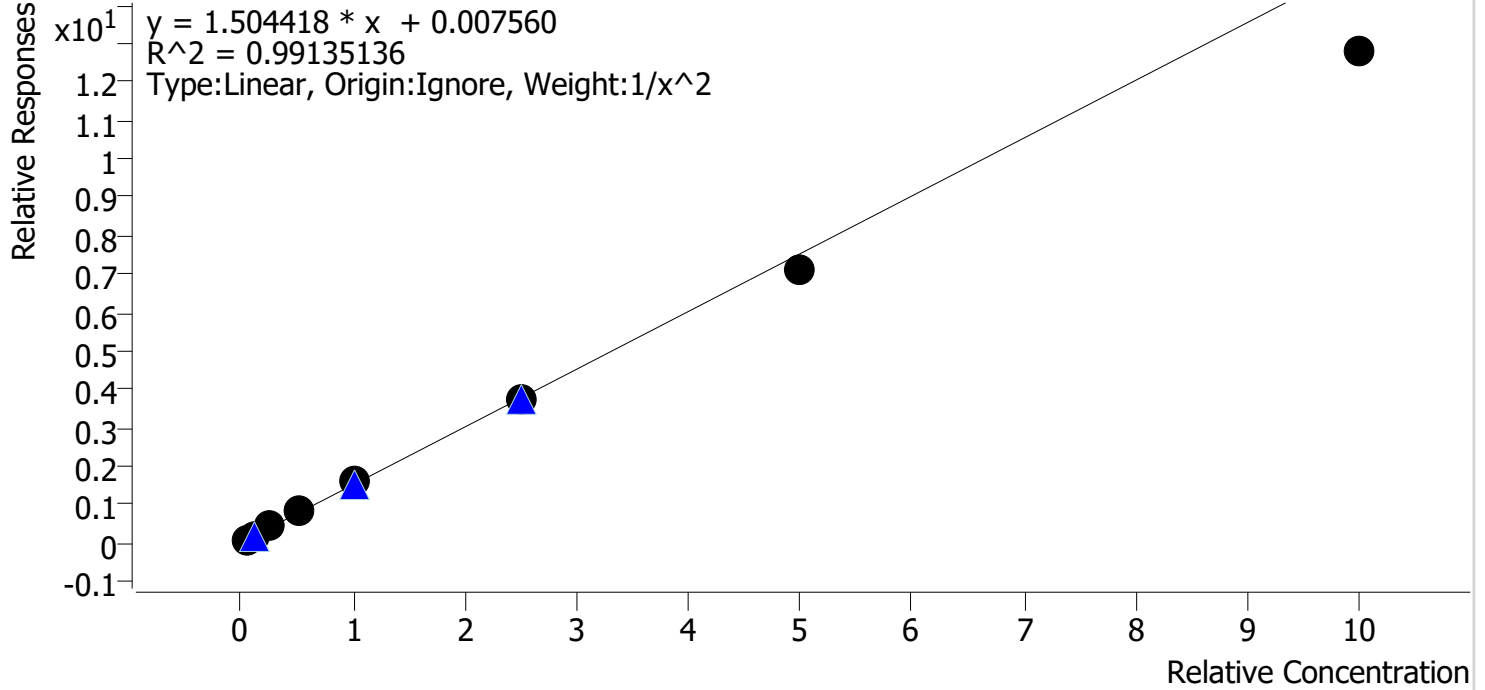
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
p2 cal 1 mdq	1	✓	5.0	4.9	97.5
p2 cal 2 mdq	2	✓	10.0	10.2	102.0
p2 cal 3 mdq	3	✓	25.0	26.1	104.5
p2 cal 4 mdq	4	✓	50.0	52.3	104.6
p2 cal 5 mdq	5	✓	100.0	104.2	104.2
p2 cal 6 mdq	6	✓	250.0	251.7	100.7
p2 cal 7 mdq	7	✓	500.0	476.3	95.3
p2 cal 8 mdq	8	✓	1000.0	912.6	91.3

# Compound Calibration Report



**Batch results**      D:\MassHunter\Data\2020 Data\am28 p2 100820\QuantResults\p2.batch.bin  
**Last Cal. Update**      10/9/2020 1:49 PM  
**Analyst Name**      ISP\datastor  
**Analyte**      Levetiracetam      **Internal Standard**      Meperidine-D4

Levetiracetam - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



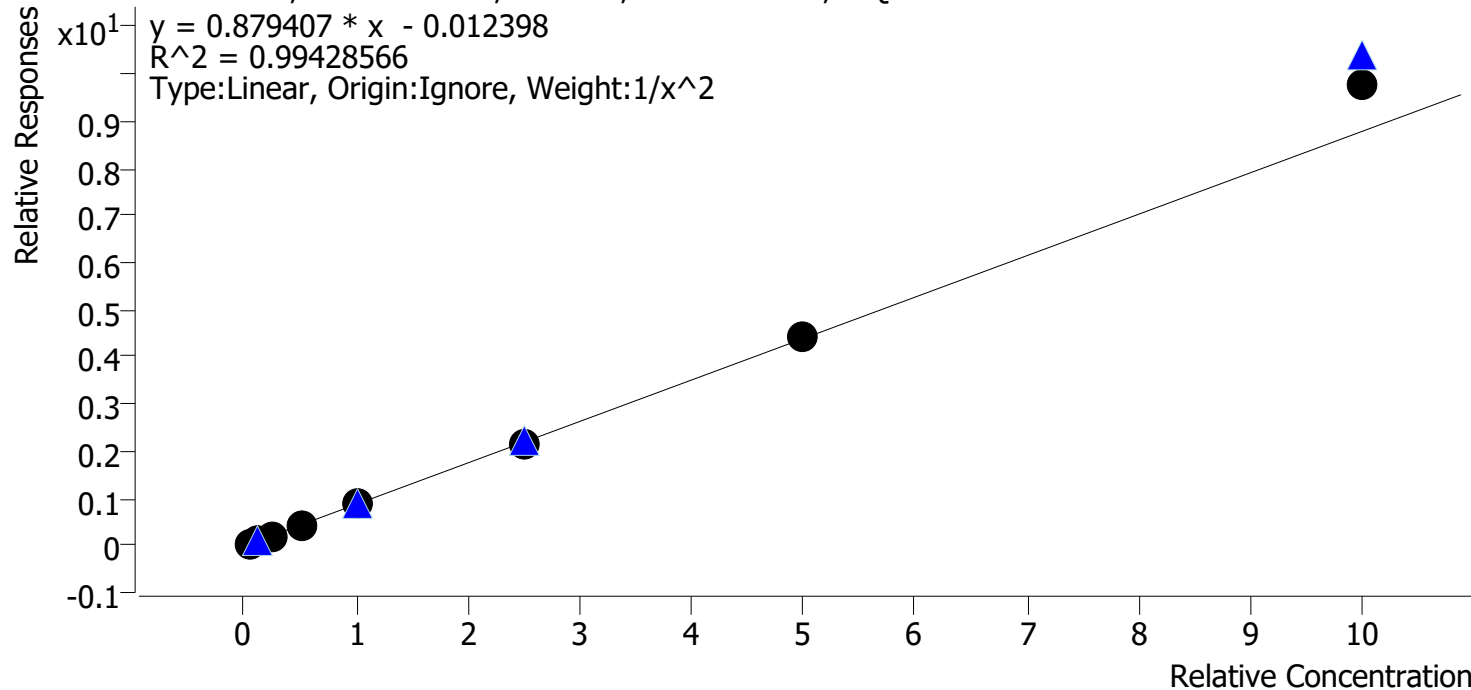
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
p2 cal 1 mdq	1	✓	5.0	4.8	95.7
p2 cal 2 mdq	2	✓	10.0	10.4	104.5
p2 cal 3 mdq	3	✓	25.0	26.2	105.0
p2 cal 4 mdq	4	✓	50.0	54.0	108.0
p2 cal 5 mdq	5	✓	100.0	108.6	108.6
p2 cal 6 mdq	6	✓	250.0	247.2	98.9
p2 cal 7 mdq	7	✓	500.0	471.9	94.4
p2 cal 8 mdq	8	✓	1000.0	849.7	85.0

# Compound Calibration Report



Batch results D:\MassHunter\Data\2020 Data\am28 p2 100820\QuantResults\p2.batch.bin  
Last Cal. Update 10/9/2020 1:49 PM  
Analyst Name ISP\datastor  
Analyte Levamisole Internal Standard Pseudoephedrine-D3

Levamisole - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



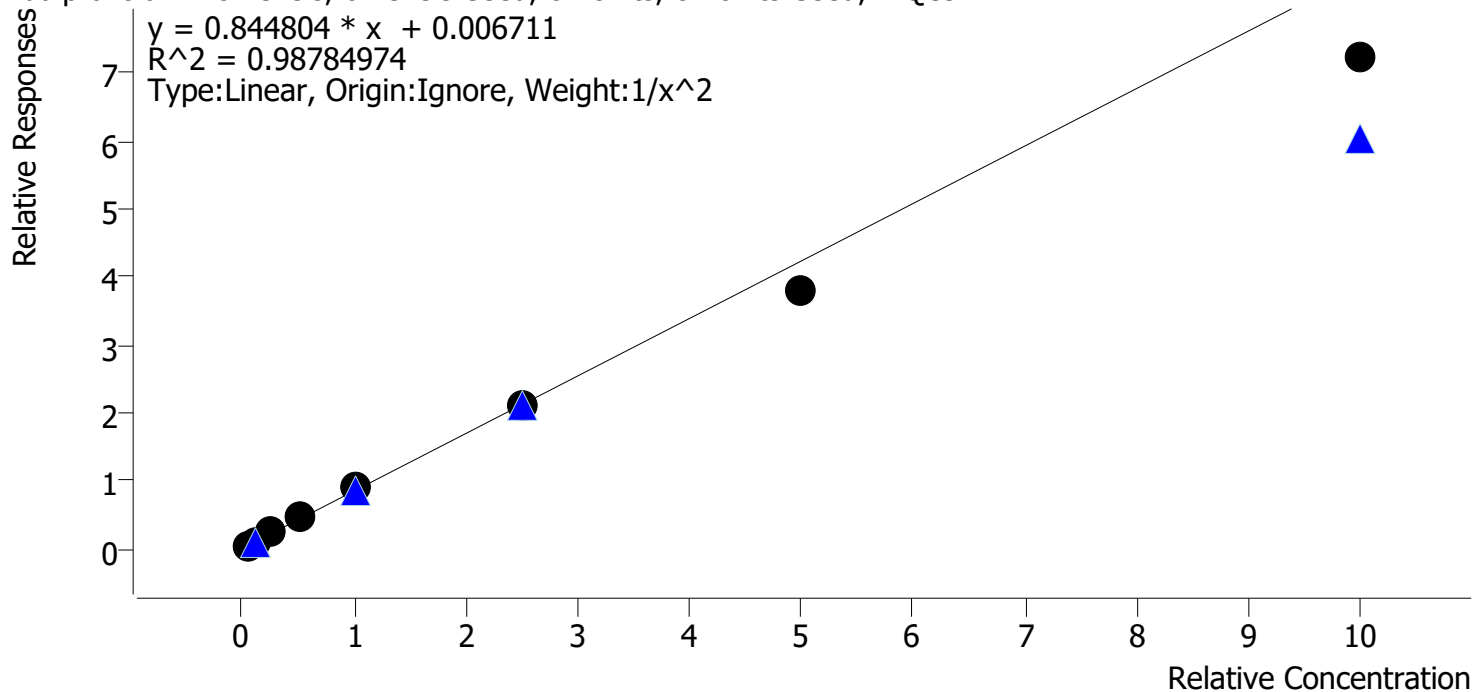
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
p2 cal 1 mdq	1	✓	5.0	5.0	100.4
p2 cal 2 mdq	2	✓	10.0	10.4	103.8
p2 cal 3 mdq	3	✓	25.0	23.3	93.1
p2 cal 4 mdq	4	✓	50.0	44.7	89.3
p2 cal 5 mdq	5	✓	100.0	102.5	102.5
p2 cal 6 mdq	6	✓	250.0	248.8	99.5
p2 cal 7 mdq	7	✓	500.0	501.7	100.3
p2 cal 8 mdq	8	✓	1000.0	1109.8	111.0

# Compound Calibration Report



**Batch results**      D:\MassHunter\Data\2020 Data\am28 p2 100820\QuantResults\p2.batch.bin  
**Last Cal. Update**      10/9/2020 1:49 PM  
**Analyst Name**      ISP\datastor  
**Analyte**      Flualprazolam      **Internal Standard**      Midazolam-D4

Flualprazolam - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



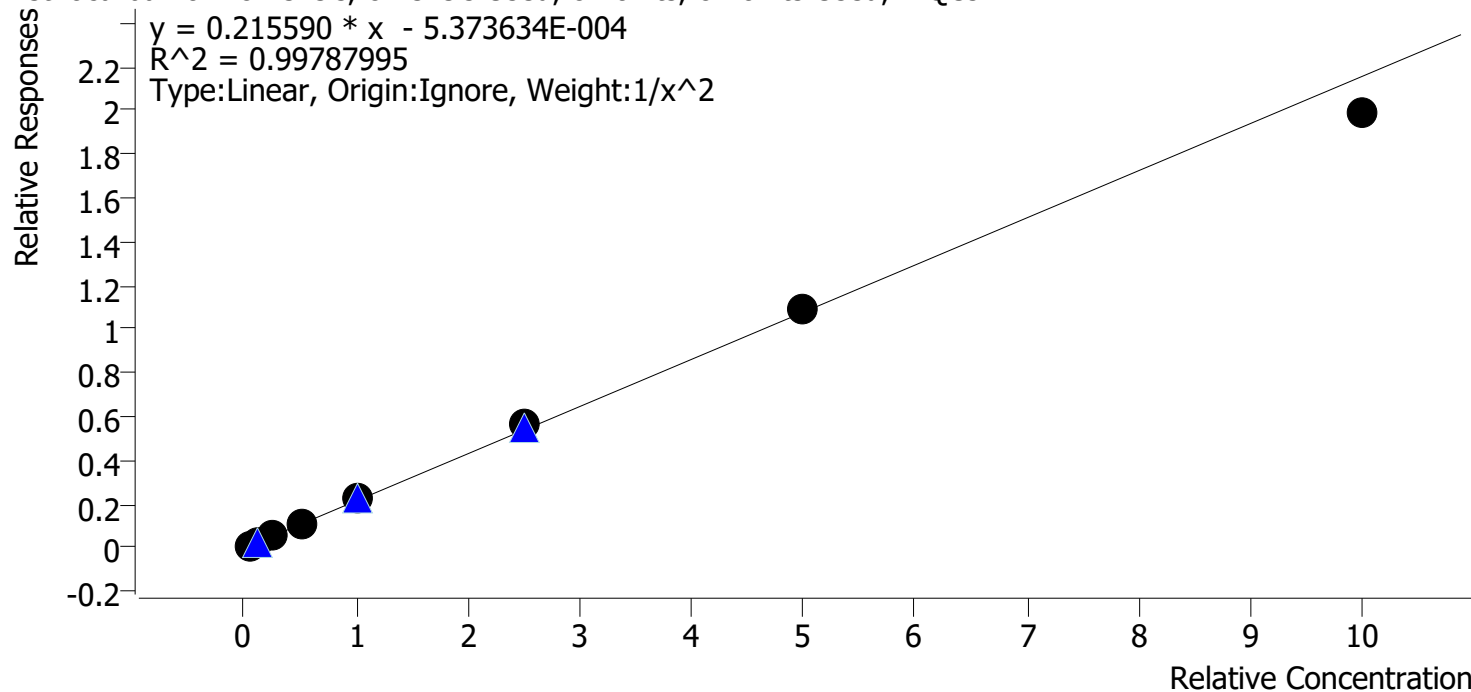
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
p2 cal 1 mdq	1	✓	5.0	4.7	93.6
p2 cal 2 mdq	2	✓	10.0	10.6	106.5
p2 cal 3 mdq	3	✓	25.0	28.0	112.0
p2 cal 4 mdq	4	✓	50.0	52.5	104.9
p2 cal 5 mdq	5	✓	100.0	108.7	108.7
p2 cal 6 mdq	6	✓	250.0	248.0	99.2
p2 cal 7 mdq	7	✓	500.0	448.3	89.7
p2 cal 8 mdq	8	✓	1000.0	853.8	85.4

# Compound Calibration Report



<b>Batch results</b>	D:\MassHunter\Data\2020 Data\am28 p2 100820\QuantResults\p2.batch.bin		
<b>Last Cal. Update</b>	10/9/2020 1:49 PM		
<b>Analyst Name</b>	ISP\datastor		
<b>Analyte</b>	Methocarbamol	<b>Internal Standard</b>	Carbamazepine-13C6

Methocarbamol - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
p2 cal 1 mdq	1	✓	5.0	5.0	99.2
p2 cal 2 mdq	2	✓	10.0	10.2	102.3
p2 cal 3 mdq	3	✓	25.0	24.3	97.4
p2 cal 4 mdq	4	✓	50.0	49.9	99.7
p2 cal 5 mdq	5	✓	100.0	102.6	102.6
p2 cal 6 mdq	6	✓	250.0	262.6	105.0
p2 cal 7 mdq	7	✓	500.0	508.8	101.8
p2 cal 8 mdq	8	✓	1000.0	920.0	92.0

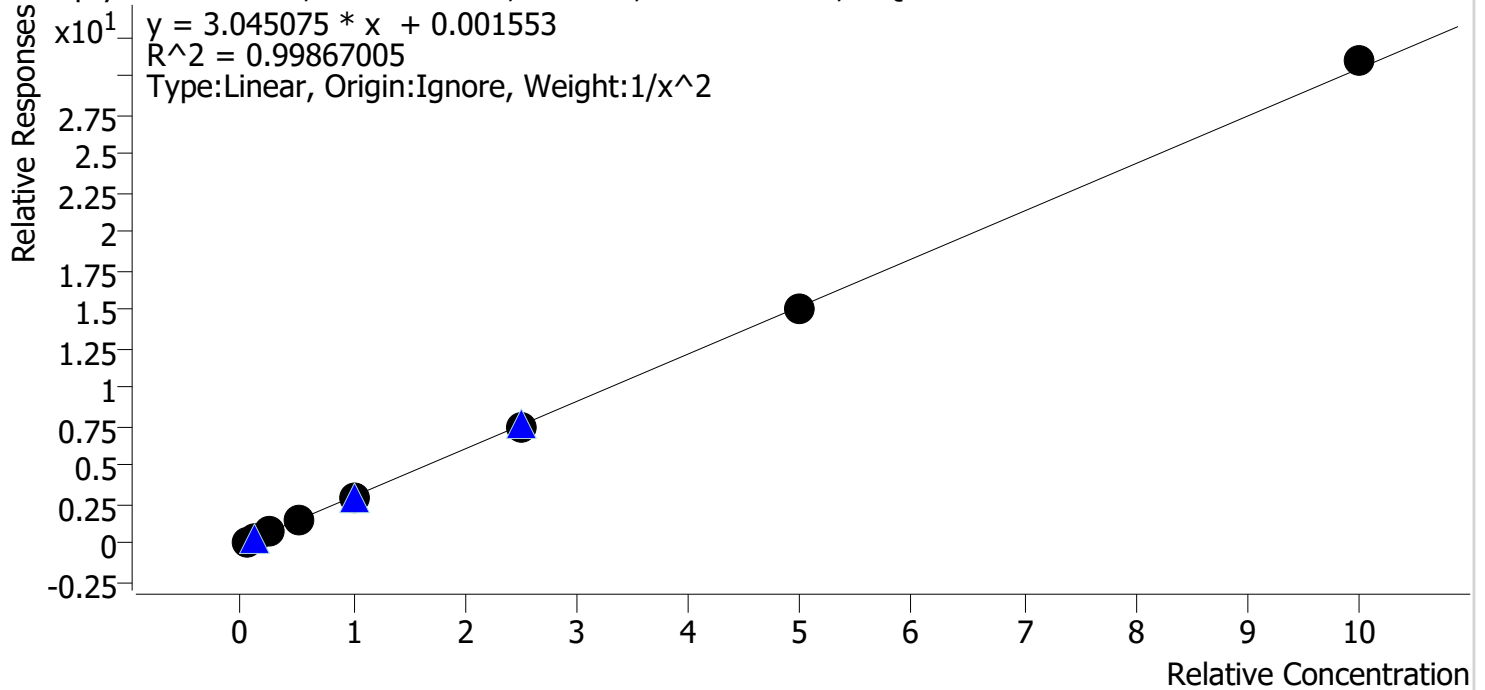


# Compound Calibration Report



<b>Batch results</b>	D:\MassHunter\Data\2020 Data\am28 p2 100820\QuantResults\p2.batch.bin		
<b>Last Cal. Update</b>	10/9/2020 1:49 PM		
<b>Analyst Name</b>	ISP\datastor		
<b>Analyte</b>	Nortriptyline	<b>Internal Standard</b>	Nortriptyline-d3

Nortriptyline - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 4 QCs

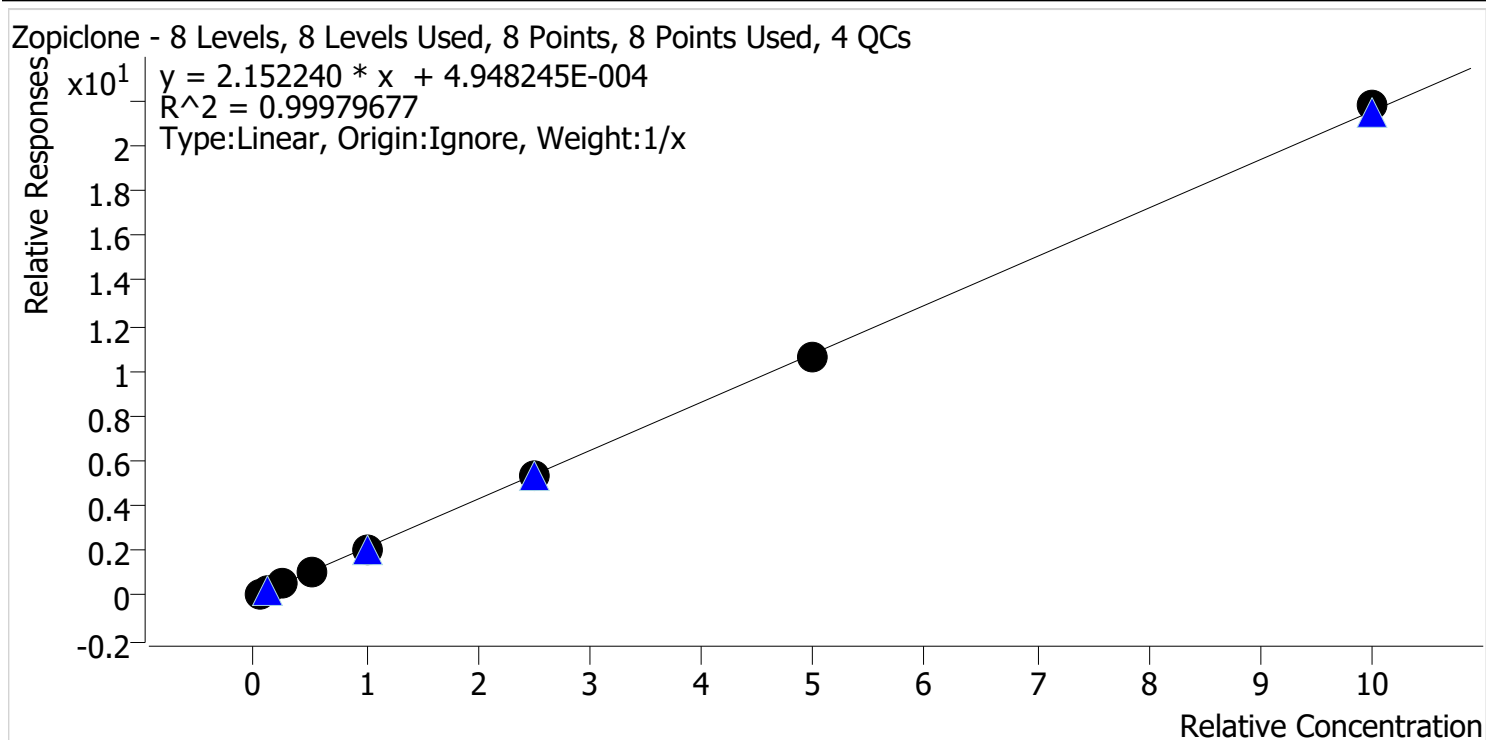


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
p2 cal 1 mdq	1	✓	5.0	4.9	98.0
p2 cal 2 mdq	2	✓	10.0	10.3	102.9
p2 cal 3 mdq	3	✓	25.0	25.6	102.5
p2 cal 4 mdq	4	✓	50.0	52.0	104.0
p2 cal 5 mdq	5	✓	100.0	95.2	95.2
p2 cal 6 mdq	6	✓	250.0	242.9	97.2
p2 cal 7 mdq	7	✓	500.0	493.7	98.7
p2 cal 8 mdq	8	✓	1000.0	1015.8	101.6

# Compound Calibration Report



**Batch results** D:\MassHunter\Data\2020 Data\am28 p2 100820\QuantResults\p2.batch.bin  
**Last Cal. Update** 10/9/2020 1:49 PM  
**Analyst Name** ISP\datastor  
**Analyte** Zopiclone **Internal Standard** Zopiclone-D4



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
p2 cal 1 mdq	1	✓	5.0	4.9	98.3
p2 cal 2 mdq	2	✓	10.0	10.2	102.4
p2 cal 3 mdq	3	✓	25.0	25.8	103.2
p2 cal 4 mdq	4	✓	50.0	50.1	100.1
p2 cal 5 mdq	5	✓	100.0	97.8	97.8
p2 cal 6 mdq	6	✓	250.0	245.3	98.1
p2 cal 7 mdq	7	✓	500.0	494.4	98.9
p2 cal 8 mdq	8	✓	1000.0	1011.4	101.1

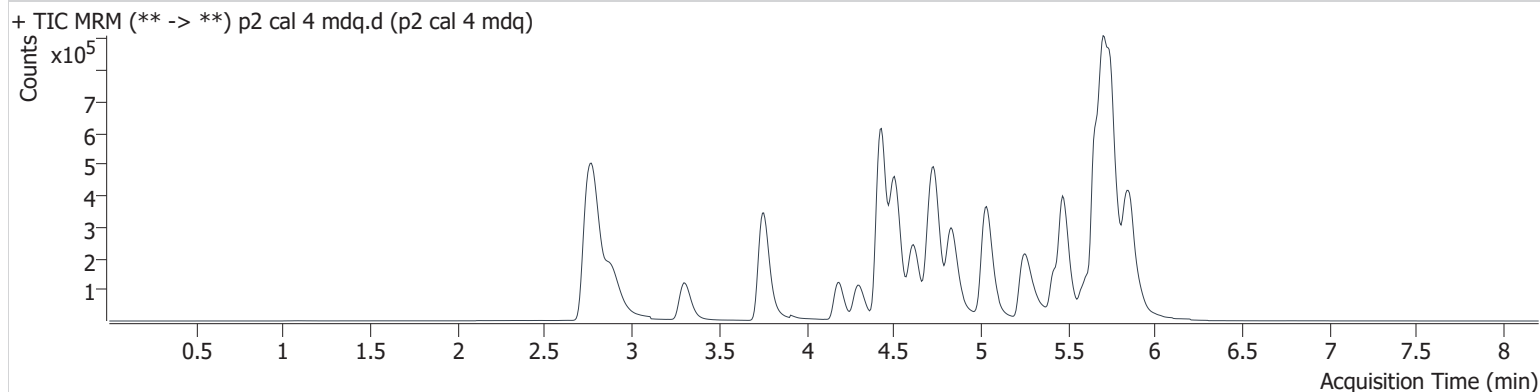
OA

# AM #28 Multi-Drug Quant. Results

**Batch results** D:\MassHunter\Data\2020 Data\am28 p2 100820\QuantResults\p2.batch.bin  
**Calibration Last Update** 10/9/2020 1:49:25 PM

**Instrument** 69679 **Data File** p2 cal 4 mdq.d  
**Type** Cal **Sample** p2 cal 4 mdq  
**Acq. Method** MDQP2 5-27-20.m **Operator** Anne Nord  
**Sample Position** P2-D4 **Comment**  
**Injection Volume** 2.5  
**Acq. Date-Time** 10/8/2020 4:06:29 PM  
**Sample Info.**

## Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Amitriptyline	5.731	140732	1916.8	104.6	419.1	107243	52.038 ng/ml
Clonazepam	5.617	197798	10098.6	33.9	24594.7	32413	56.064 ng/ml
Doxepin	5.470	188240	2058.5	44.3	764.4	181150	50.223 ng/ml
Etizolam	5.843	134835	104830.2	23.2	17909.9	199774	52.290 ng/ml
Flualprazolam	5.748	89864	2362.0	127.2	5919.2	199774	52.452 ng/ml
Levamisole	2.889	438102	52450.0	82.1	4879.9	1151863	44.660 ng/ml
Levetiracetam	2.803	274581	2185.8	155.9	3348.4	334789	54.014 ng/ml
Methocarbamol	4.533	97887	2112.1	83.9	6433.7	914991	49.872 ng/ml
Nortriptyline	5.759	133347	26254.9	32.4	424.1	84140	51.995 ng/ml
Zopiclone	4.298	199147	12836.4	58.9	8913.0	184700	50.075 ng/ml

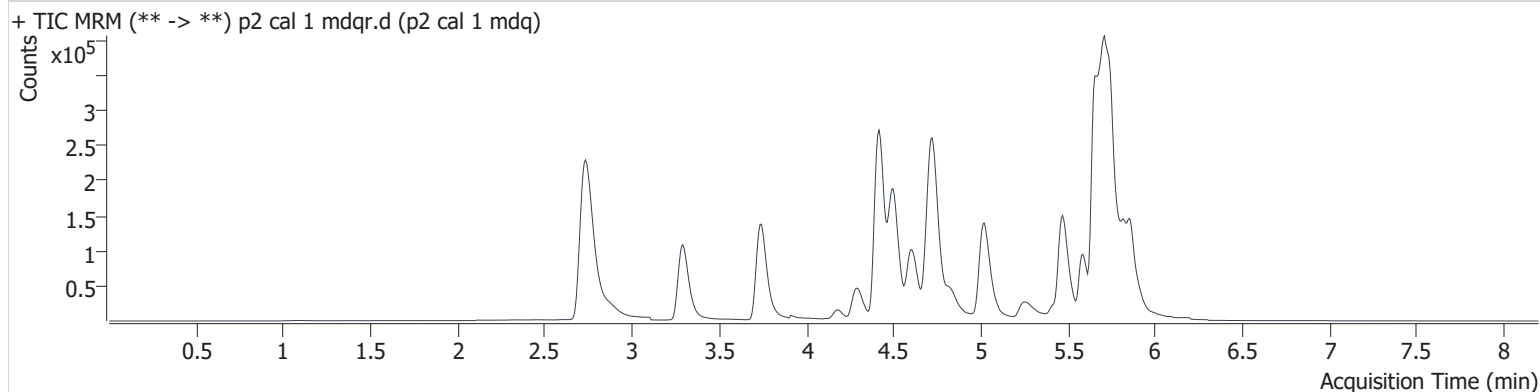
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# AM #28 Multi-Drug Quant. Results

**Batch results** D:\MassHunter\Data\2020 Data\am28 p2 100820\QuantResults\p2.batch.bin  
**Calibration Last Update** 10/9/2020 1:49:25 PM

<b>Instrument</b>	69679	<b>Data File</b>	p2 cal 1 mdqr.d
<b>Type</b>	Cal	<b>Sample</b>	p2 cal 1 mdq
<b>Acq. Method</b>	MDQP2 5-27-20.m	<b>Operator</b>	Anne Nord
<b>Sample Position</b>	P2-A4	<b>Comment</b>	
<b>Injection Volume</b>	2.5		
<b>Acq. Date-Time</b>	10/8/2020 4:17:17 PM		
<b>Sample Info.</b>			

## Sample Chromatogram



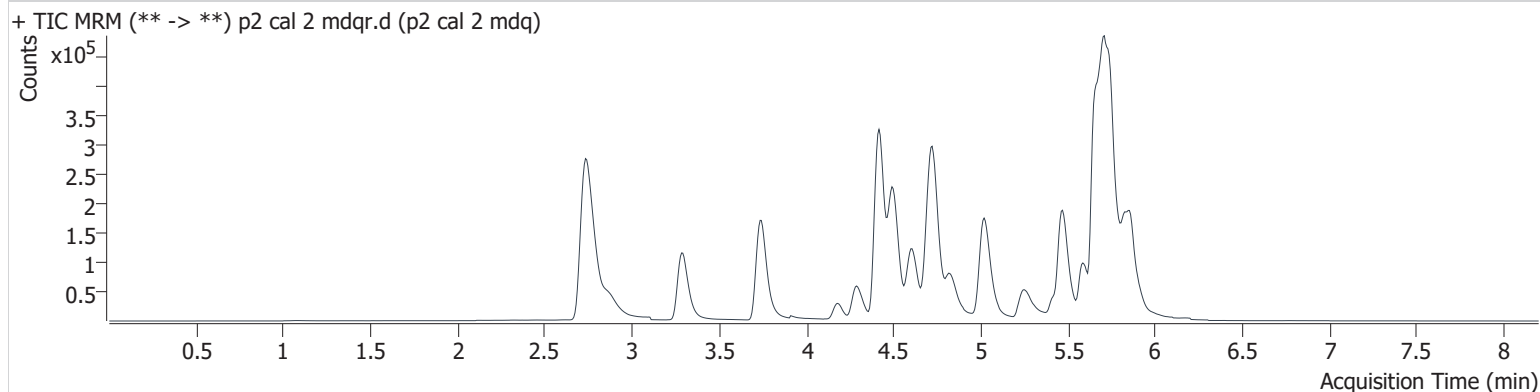
Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Amitriptyline	5.731	18924	152.3	95.1	74.6	136334	4.842 ng/ml
Clonazepam	5.617	19900	458.5	34.9	320.4	33260	4.626 ng/ml
Doxepin	5.470	23656	112.9	42.9	52.3	218491	4.614 ng/ml
Etizolam	5.843	14031	10131.6	22.7	5426.6	198503	4.875 ng/ml
Flualprazolam	5.748	9182	331.1	126.4	674.5	198503	4.681 ng/ml
Levamisole	2.876	35443	3896.1	82.5	137.6	1117000	5.018 ng/ml
Levetiracetam	2.789	26967	122.9	154.9	269.6	339049	4.784 ng/ml
Methocarbamol	4.519	9673	71.7	88.8	274.9	952688	4.959 ng/ml
Nortriptyline	5.752	17600	260.2	34.9	175.3	116780	4.898 ng/ml
Zopiclone	4.292	18090	198.2	59.0	315.9	170161	4.916 ng/ml

# AM #28 Multi-Drug Quant. Results

**Batch results** D:\MassHunter\Data\2020 Data\am28 p2 100820\QuantResults\p2.batch.bin  
**Calibration Last Update** 10/9/2020 1:49:25 PM

<b>Instrument</b>	69679	<b>Data File</b>	p2 cal 2 mdqr.d
<b>Type</b>	Cal	<b>Sample</b>	p2 cal 2 mdq
<b>Acq. Method</b>	MDQP2 5-27-20.m	<b>Operator</b>	Anne Nord
<b>Sample Position</b>	P2-B4	<b>Comment</b>	
<b>Injection Volume</b>	2.5		
<b>Acq. Date-Time</b>	10/8/2020 4:28:04 PM		

## Sample Chromatogram



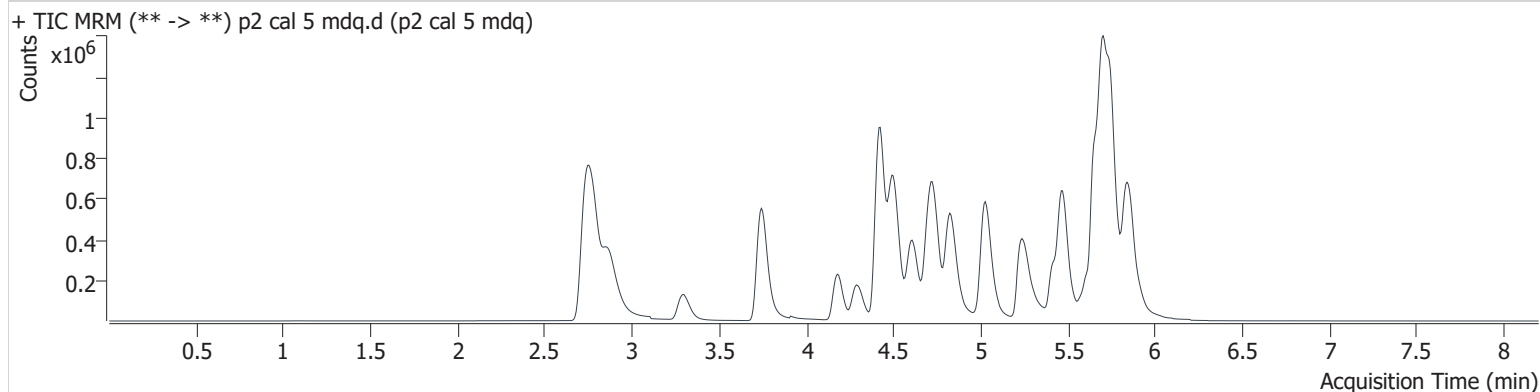
Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Amitriptyline	5.731	37680	349.8	105.0	225.6	135652	10.431 ng/ml
Clonazepam	5.610	44461	3998.3	31.5	715.4	34831	10.963 ng/ml
Doxepin	5.470	49208	483.3	41.5	97.4	216357	10.453 ng/ml
Etizolam	5.843	29189	11416.9	23.4	6435.0	210641	10.202 ng/ml
Flualprazolam	5.748	20365	1618.6	123.2	457.9	210641	10.650 ng/ml
Levamisole	2.876	88484	577.5	83.9	191.3	1121600	10.381 ng/ml
Levetiracetam	2.789	57546	438.6	163.2	943.2	349333	10.447 ng/ml
Methocarbamol	4.519	21127	204.9	85.4	1201.7	981624	10.233 ng/ml
Nortriptyline	5.759	35477	918.9	32.2	284.3	112696	10.287 ng/ml
Zopiclone	4.292	40440	580.7	61.2	2258.1	183144	10.237 ng/ml

# AM #28 Multi-Drug Quant. Results

**Batch results** D:\MassHunter\Data\2020 Data\am28 p2 100820\QuantResults\p2.batch.bin  
**Calibration Last Update** 10/9/2020 1:49:25 PM

<b>Instrument</b>	69679	<b>Data File</b>	p2 cal 5 mdq.d
<b>Type</b>	Cal	<b>Sample</b>	p2 cal 5 mdq
<b>Acq. Method</b>	MDQP2 5-27-20.m	<b>Operator</b>	Anne Nord
<b>Sample Position</b>	P2-E4	<b>Comment</b>	
<b>Injection Volume</b>	2.5		
<b>Acq. Date-Time</b>	10/8/2020 4:38:52 PM		
<b>Sample Info.</b>			

## Sample Chromatogram



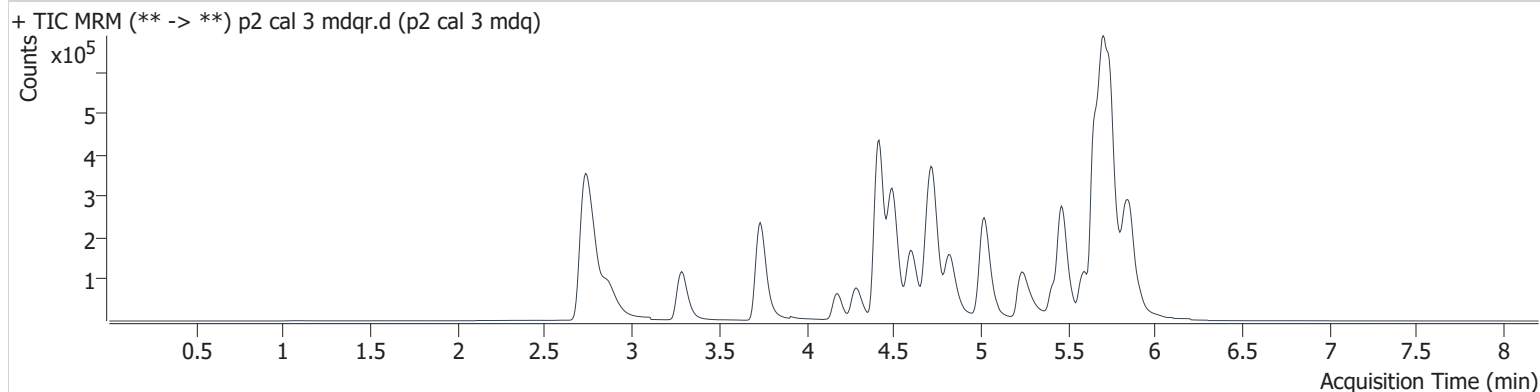
Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Amitriptyline	5.731	253221	22002.1	104.1	509.1	99678	101.434 ng/ml
Clonazepam	5.610	367133	4425.9	33.8	19326.4	32351	105.091 ng/ml
Doxepin	5.470	339103	1050.6	45.0	28128.0	165973	99.414 ng/ml
Etizolam	5.843	243312	6189.8	23.5	35932.0	182127	104.159 ng/ml
Flualprazolam	5.748	168484	6087.6	124.3	32453.4	182127	108.710 ng/ml
Levamisole	2.869	903245	231.1	83.4	7597.7	1015640	102.539 ng/ml
Levetiracetam	2.789	512615	5168.2	154.9	3987.7	312378	108.577 ng/ml
Methocarbamol	4.519	186340	4363.6	79.7	208.9	844615	102.583 ng/ml
Nortriptyline	5.752	230273	23086.7	33.6	867.4	79428	95.157 ng/ml
Zopiclone	4.285	368387	56117.9	60.9	11793.8	174936	97.821 ng/ml

# AM #28 Multi-Drug Quant. Results

**Batch results** D:\MassHunter\Data\2020 Data\am28 p2 100820\QuantResults\p2.batch.bin  
**Calibration Last Update** 10/9/2020 1:49:25 PM

<b>Instrument</b>	69679	<b>Data File</b>	p2 cal 3 mdqr.d
<b>Type</b>	Cal	<b>Sample</b>	p2 cal 3 mdq
<b>Acq. Method</b>	MDQP2 5-27-20.m	<b>Operator</b>	Anne Nord
<b>Sample Position</b>	P2-C4	<b>Comment</b>	
<b>Injection Volume</b>	2.5		
<b>Acq. Date-Time</b>	10/8/2020 4:49:39 PM		
<b>Sample Info.</b>			

## Sample Chromatogram



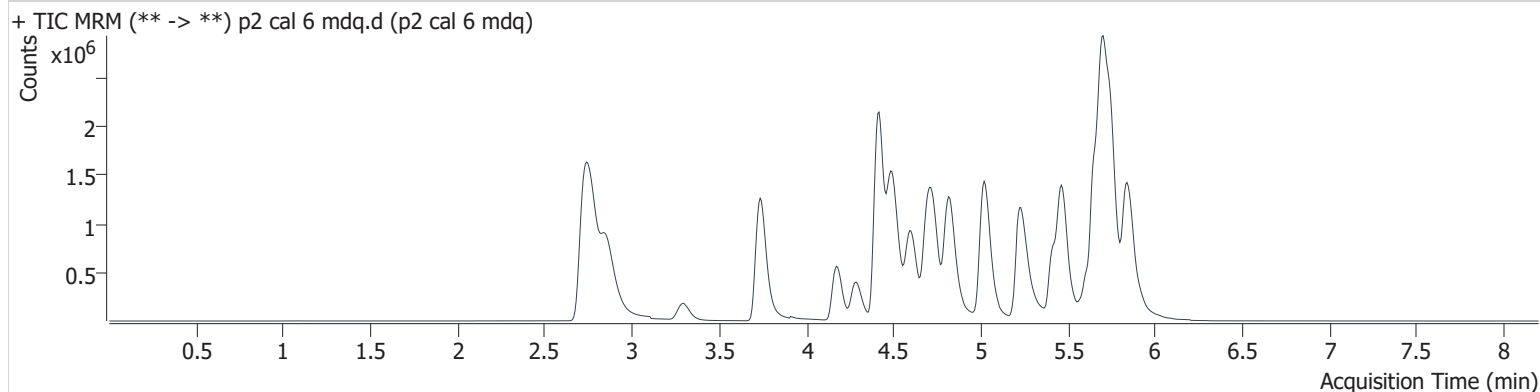
Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Amitriptyline	5.731	87261	1912.7	101.0	383.6	132435	25.760 ng/ml
Clonazepam	5.610	100526	9271.0	34.0	6306.8	33927	26.724 ng/ml
Doxepin	5.463	111255	882.9	43.7	290.2	208816	25.414 ng/ml
Etizolam	5.843	68762	38146.1	23.6	7371.5	201261	26.137 ng/ml
Flualprazolam	5.741	48965	2956.2	120.1	2563.2	201261	28.004 ng/ml
Levamisole	2.869	210519	4049.3	86.4	216.5	1094231	23.287 ng/ml
Levetiracetam	2.789	134906	944.2	156.5	3081.7	335242	26.246 ng/ml
Methocarbamol	4.519	49873	89.2	83.2	1241.2	960032	24.345 ng/ml
Nortriptyline	5.752	85755	62029.2	33.5	387.3	109653	25.632 ng/ml
Zopiclone	4.285	97023	1744.9	58.6	696.7	174615	25.794 ng/ml

# AM #28 Multi-Drug Quant. Results

**Batch results** D:\MassHunter\Data\2020 Data\am28 p2 100820\QuantResults\p2.batch.bin  
**Calibration Last Update** 10/9/2020 1:49:25 PM

<b>Instrument</b>	69679	<b>Data File</b>	p2 cal 6 mdq.d
<b>Type</b>	Cal	<b>Sample</b>	p2 cal 6 mdq
<b>Acq. Method</b>	MDQP2 5-27-20.m	<b>Operator</b>	Anne Nord
<b>Sample Position</b>	P2-F4	<b>Comment</b>	
<b>Injection Volume</b>	2.5		
<b>Acq. Date-Time</b>	10/8/2020 5:00:26 PM		

## Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Amitriptyline	5.731	648455	10967.5	107.2	2431.9	103554	251.117 ng/ml
Clonazepam	5.610	846483	11428.2	33.8	71349.8	31781	247.949 ng/ml
Doxepin	5.463	956289	8548.7	46.8	3928.8	185975	251.249 ng/ml
Etizolam	5.843	521846	11718.9	23.1	23647.4	162259	251.695 ng/ml
Flualprazolam	5.748	341095	3197.9	126.7	23060.4	162259	248.040 ng/ml
Levamisole	2.856	2244930	90206.2	84.6	15464.3	1032045	248.761 ng/ml
Levetiracetam	2.789	1142161	20526.7	156.4	7961.6	306467	247.225 ng/ml
Methocarbamol	4.512	409833	3394.5	82.5	20773.6	724653	262.579 ng/ml
Nortriptyline	5.752	542981	11046.2	32.9	1619.7	73389	242.921 ng/ml
Zopiclone	4.285	933280	41267.1	59.7	29194.2	176727	245.346 ng/ml



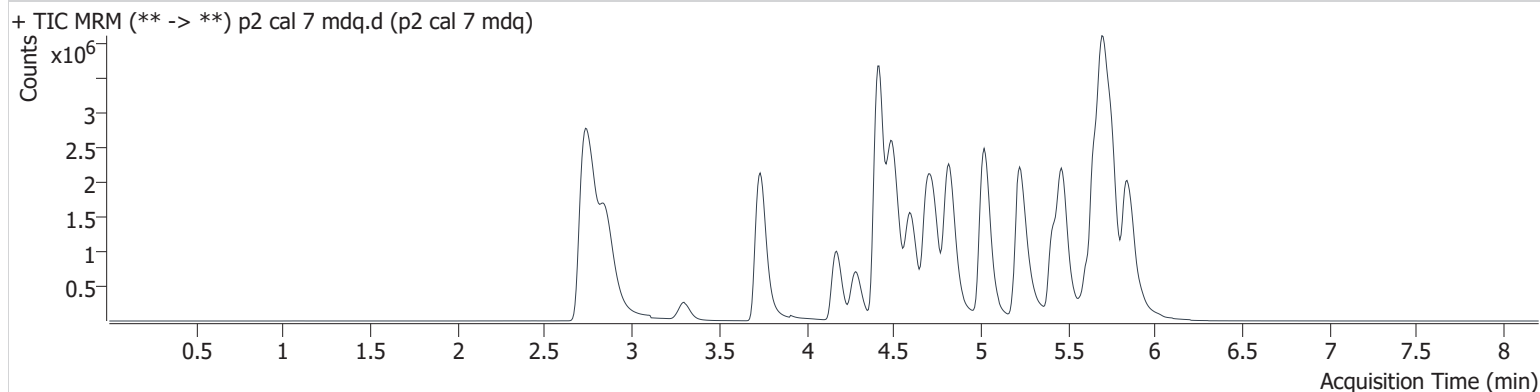
GA

# AM #28 Multi-Drug Quant. Results

**Batch results** D:\MassHunter\Data\2020 Data\am28 p2 100820\QuantResults\p2.batch.bin  
**Calibration Last Update** 10/9/2020 1:49:25 PM

<b>Instrument</b>	69679	<b>Data File</b>	p2 cal 7 mdq.d
<b>Type</b>	Cal	<b>Sample</b>	p2 cal 7 mdq
<b>Acq. Method</b>	MDQP2 5-27-20.m	<b>Operator</b>	Anne Nord
<b>Sample Position</b>	P2-G4	<b>Comment</b>	
<b>Injection Volume</b>	2.5		
<b>Acq. Date-Time</b>	10/8/2020 5:11:16 PM		

## Sample Chromatogram



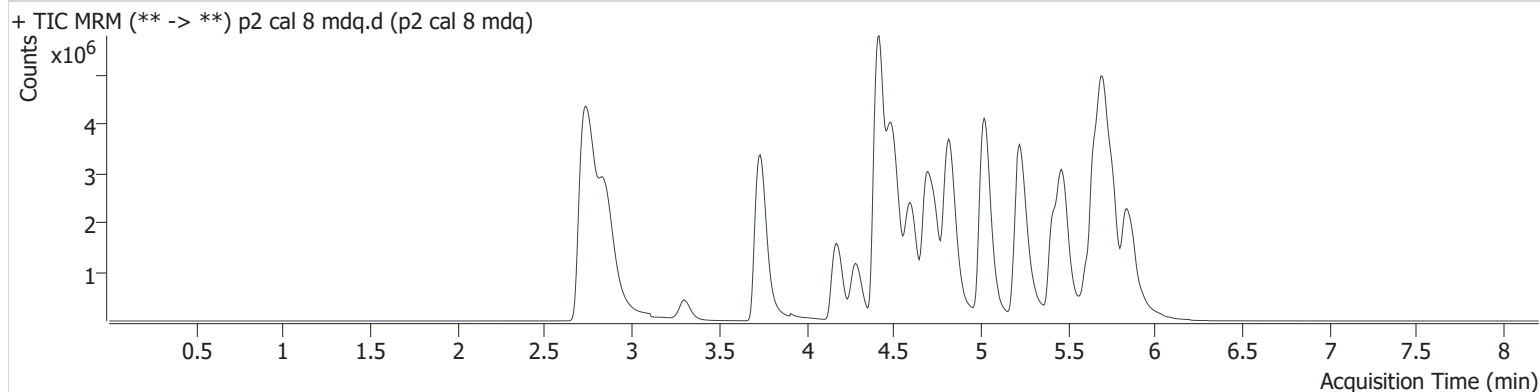
Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Amitriptyline	5.724	942326	30479.3	111.1	676.8	80492	470.115 ng/ml
Clonazepam	5.610	1472707	44103.0	34.4	17745.2	29263	469.354 ng/ml
Doxepin	5.463	1573835	46687.3	48.8	3078.6	150047	513.230 ng/ml
Etizolam	5.843	828298	13767.3	22.6	16595.2	136256	476.341 ng/ml
Flualprazolam	5.748	516959	8019.2	132.4	6328.8	136256	448.309 ng/ml
Levamisole	2.849	4273794	128169.3	84.4	39345.8	971397	501.706 ng/ml
Levetiracetam	2.789	1909035	20343.1	154.4	44180.1	268610	471.912 ng/ml
Methocarbamol	4.519	623260	7589.3	84.9	29310.9	568506	508.766 ng/ml
Nortriptyline	5.759	706710	56029.2	32.6	514.2	47002	493.726 ng/ml
Zopiclone	4.285	1744668	51383.8	59.7	41123.5	163958	494.390 ng/ml

# AM #28 Multi-Drug Quant. Results

**Batch results** D:\MassHunter\Data\2020 Data\am28 p2 100820\QuantResults\p2.batch.bin  
**Calibration Last Update** 10/9/2020 1:49:25 PM

<b>Instrument</b>	69679	<b>Data File</b>	p2 cal 8 mdq.d
<b>Type</b>	Cal	<b>Sample</b>	p2 cal 8 mdq
<b>Acq. Method</b>	MDQP2 5-27-20.m	<b>Operator</b>	Anne Nord
<b>Sample Position</b>	P2-H4	<b>Comment</b>	
<b>Injection Volume</b>	2.5		
<b>Acq. Date-Time</b>	10/8/2020 5:32:49 PM		

## Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Amitriptyline	5.724	1048320	15502.4	112.3	1742.5	43958	958.440 ng/ml
Clonazepam	5.610	2284117	19655.0	34.7	64181.4	26423	806.908 ng/ml
Doxepin	5.463	2008815	21284.6	49.8	3076.4	99812	985.405 ng/ml
Etizolam	5.843	1260877	4236.7	23.6	1030.0	108341	912.551 ng/ml
Flualprazolam	5.748	782182	9465.9	133.5	7325.2	108341	853.796 ng/ml
Levamisole	2.849	7976981	90176.9	84.2	943.7	818369	1109.818 ng/ml
Levetiracetam	2.789	2782650	11432.8	154.3	49971.2	217542	849.750 ng/ml
Methocarbamol	4.526	832638	25442.2	84.6	47054.1	419901	920.023 ng/ml
Nortriptyline	5.759	657384	6782.8	32.0	12709.0	21252	1015.793 ng/ml
Zopiclone	4.278	2987529	362725.4	60.2	139154.9	137240	1011.422 ng/ml