






REVIEWED
By Anne Nord at 2:28 pm, Jun 16, 2021

6/11/2021



Worklist: 5044

<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>	
C2021-1011	2	BCK	AM 28 Blood Multi-Drug Quant Panel 2 by LC-QQQ	
C2021-1036	1	UCK	AM 28 Urine Multi-Drug Confirmation Panel 2 by LC-QQ	
C2021-1038	1	UCK	AM 28 Urine Multi-Drug Confirmation Panel 2 by LC-QQ	
C2021-1079	1	UCK	AM 28 Urine Multi-Drug Confirmation Panel 2 by LC-QQ	
C2021-1295	1	BCK	AM 28 Blood Multi-Drug Quant Panel 2 by LC-QQQ	

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

BWylie

Extraction Date 6/9/2021

Analyst: Britany Wylie

Plate lot#: 201207

Plate Expiration: 6/7/2021

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: 21D52496

Urine Blank lot: 5621

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. 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.
- 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** 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 R² 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: *Due to the extraction occurring after the expiration of the analytical plate, an external control was included with this run as specified in the analytical method.*

Only Evaluated: Amitriptyline, Clomipramine, Chlorpheniramine, Maprotiline, Methocarbamol, Midazolam, Nortriptyline and Phencyclidine

Curve limitations: *Chlorpheniramine 5-100, maprotiline 5-500, methocarbamol 5-500*

Batch was reinjected 6/10/21 and evaluated, initial injection: incorrect plate positions for some samples and multiple compounds had shifts in retention time, insufficient mobile phase to reinjected selected samples. New mobile phase was prepared.

am 28 p2
6/9/21 worklist

Buylee

	1	2	3	4	5	6	7	8	9	10	11	12
A	IS + Cal. 1	IS + QC_1	neg urine	IS + Cal. 1	IS + QC_1				IS + Cal. 8			IS + Cal. 8
B	IS + Cal. 2	IS + QC_2	pc urine	IS + Cal. 2	IS + QC_2				IS + Cal. 7			IS + Cal. 7
C	IS + Cal. 3	IS + QC_3	1036-1	IS + Cal. 3	IS + QC_3				IS + Cal. 6			IS + Cal. 6
D	IS + Cal. 4	IS + QC_4	1039-1	IS + Cal. 4	IS + QC_4				IS + Cal. 5			IS + Cal. 5
E	IS + Cal. 5	neg blood	1079-1	IS + Cal. 5				IS + QC_4	IS + Cal. 4		IS + QC_4	IS + Cal. 4
F	IS + Cal. 6	pc blood		IS + Cal. 6				IS + QC_3	IS + Cal. 3		IS + QC_3	IS + Cal. 3
G	IS + Cal. 7	1011-2		IS + Cal. 7				IS + QC_2	IS + Cal. 2		IS + QC_2	IS + Cal. 2
H	IS + Cal. 8	1295-1		IS + Cal. 8				IS + QC_1	IS + Cal. 1		IS + QC_1	IS + Cal. 1

All wells to contain 60 µl of Trapping Solution

BWylee

Toxicology AM method 25/28 urine external control prep

working solution 10000 ng/ml in meoh diphendyramine, methamphetamine, alprazolam, methocarbamol, methylphenidate, morphine

Stock solution 1mg/ml 50 ul each in 4700 ul MeOH (Honeywell EA078-US)

ppd 4/14/21: Exp: 4/14/2022 lot 41422 by AMN

Drug	lot	expiration
Methamphetamine	FE03132001	7/1/2025
methocarbamol	FN01212005	1/1/2023
alprazolam	FE06102008	6/1/2025
Diphendyramine	FN02212011	3/1/2025
Methylphenidate	FE01212007	2/1/2025
Morphine	FE03232010	4/1/2025

AM 25/28 control 500 ul working solution (41422) in 4500 ul negative urine (1000ng/mL Expected concentration)

ppd 4/14/22, exp 4/14/22 lot u41422 negative urine 2121 by AMN

AM 25/28 Blood Control: 50ul working solution (41422) in 4950 ul neg blood (100ng/mL Expected concentration)

ppp 4/14/21, exp 4/14/22 lot b41422 neg blood 20J20793 by AMN

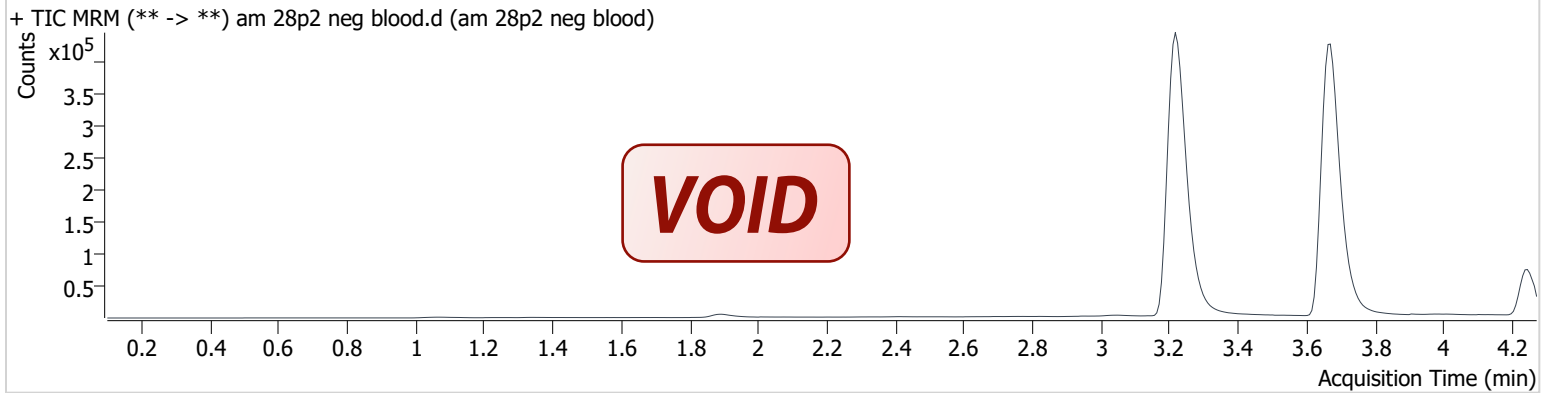
AM #28 Multi-Drug Quant. Results

B. Wylie

Batch results D:\MassHunter\Data\2021\am 27-28\060921r\QuantResults\mdqp2.batch.bin
Calibration Last Update 6/16/2021 1:13:31 PM

Instrument	69679	Data File	am 28p2 neg blood.d
Type	Sample	Sample	am 28p2 neg blood
Acq. Method	mdqp2 6-10-21.m	Operator	Britany Wylie
Sample Position	P1-E2	Comment	
Injection Volume	5		
Acq. Date-Time	6/10/2021 11:46:58 AM		
Sample Info.			

Sample Chromatogram



pressure maxed out on instrument- sample was reinjected

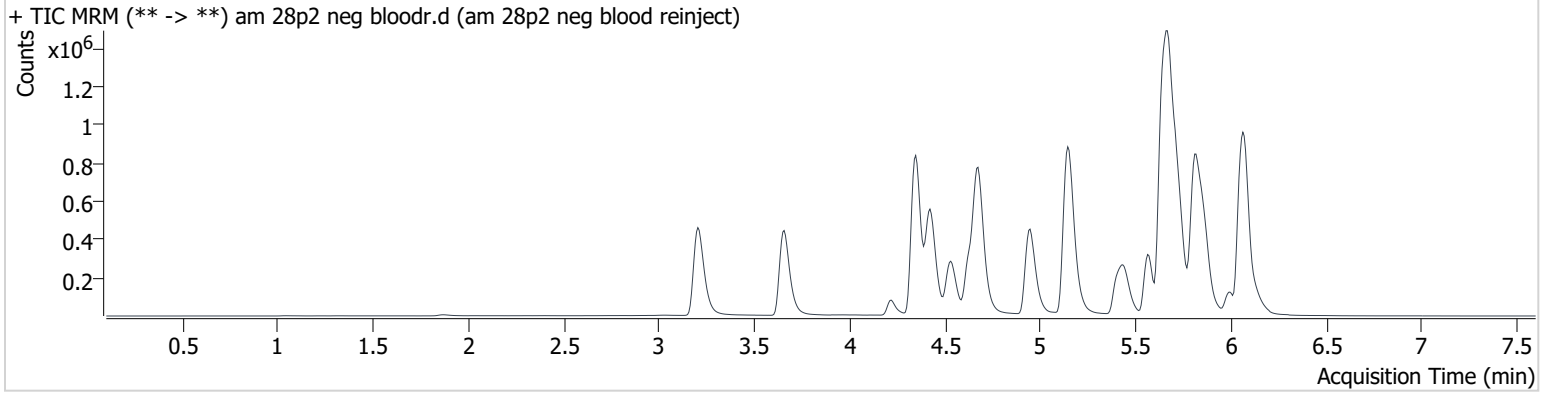
AM #28 Multi-Drug Quant. Results

B. Wylie

Batch results D:\MassHunter\Data\2021\am 27-28\060921r\QuantResults\mdqp2.batch.bin
Calibration Last Update 6/16/2021 1:13:31 PM

Instrument	69679	Data File	am 28p2 neg bloodr.d
Type	Sample	Sample	am 28p2 neg blood reinject
Acq. Method	mdqp2 6-10-21.m	Operator	Britany Wylie
Sample Position	P1-E2	Comment	
Injection Volume	5		
Acq. Date-Time	6/10/2021 2:19:49 PM		
Sample Info.			

Sample Chromatogram



AM #28 Multi-Drug Quant. Results

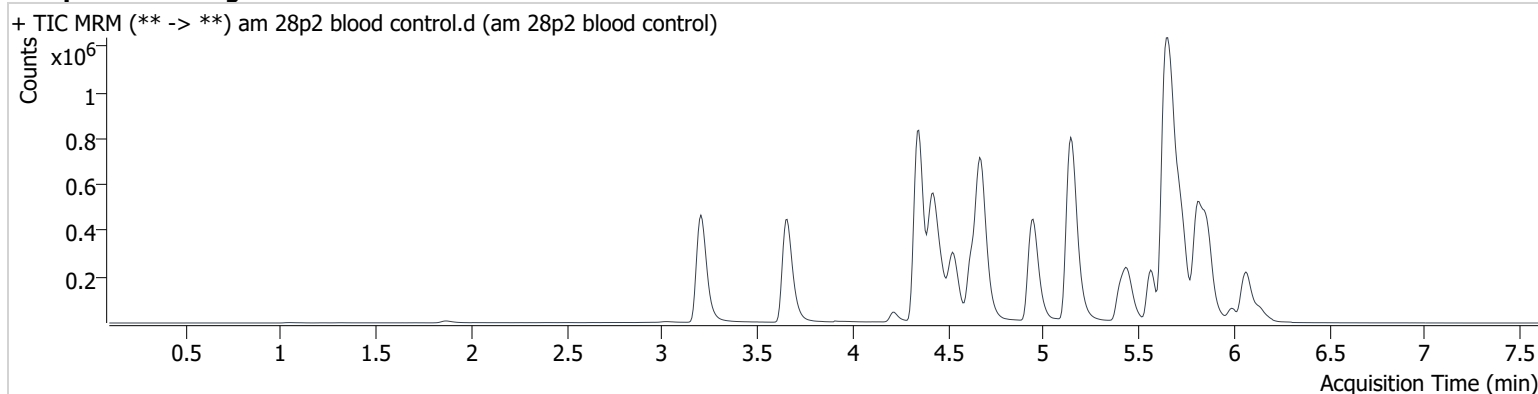
B. Wylie

Batch results D:\MassHunter\Data\2021\am 27-28\060921r\QuantResults\mdqp2.batch.bin
Calibration Last Update 6/16/2021 1:13:31 PM

Instrument	69679	Data File	am 28p2 blood control.d
Type	Sample	Sample	am 28p2 blood control
Acq. Method	mdqp2 6-10-21.m	Operator	Britany Wylie
Sample Position	P1-F2	Comment	
Injection Volume	5		
Acq. Date-Time	6/10/2021 2:38:29 PM		

Sample Info.

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Methocarbamol	4.472	244690	2506.1	80.5	6598.9	1057173	72.878 ng/ml

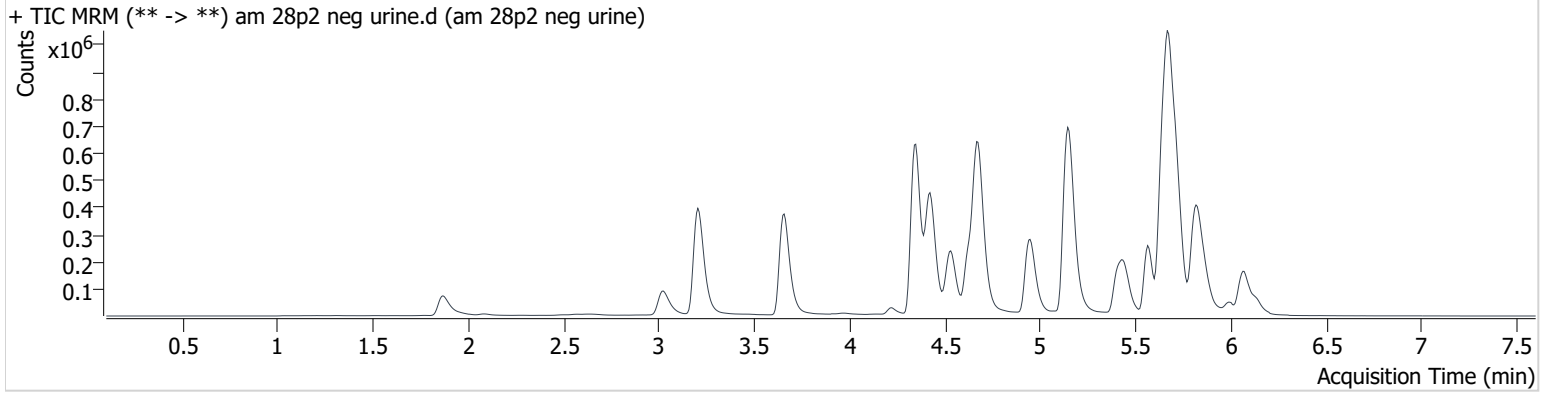
AM #28 Multi-Drug Quant. Results

B. Wylie

Batch results D:\MassHunter\Data\2021\am 27-28\060921r\QuantResults\mdqp2.batch.bin
Calibration Last Update 6/16/2021 1:13:31 PM

Instrument	69679	Data File	am 28p2 neg urine.d
Type	Sample	Sample	am 28p2 neg urine
Acq. Method	mdqp2 6-10-21.m	Operator	Britany Wylie
Sample Position	P1-A3	Comment	
Injection Volume	5		
Acq. Date-Time	6/10/2021 3:43:41 PM		
Sample Info.			

Sample Chromatogram



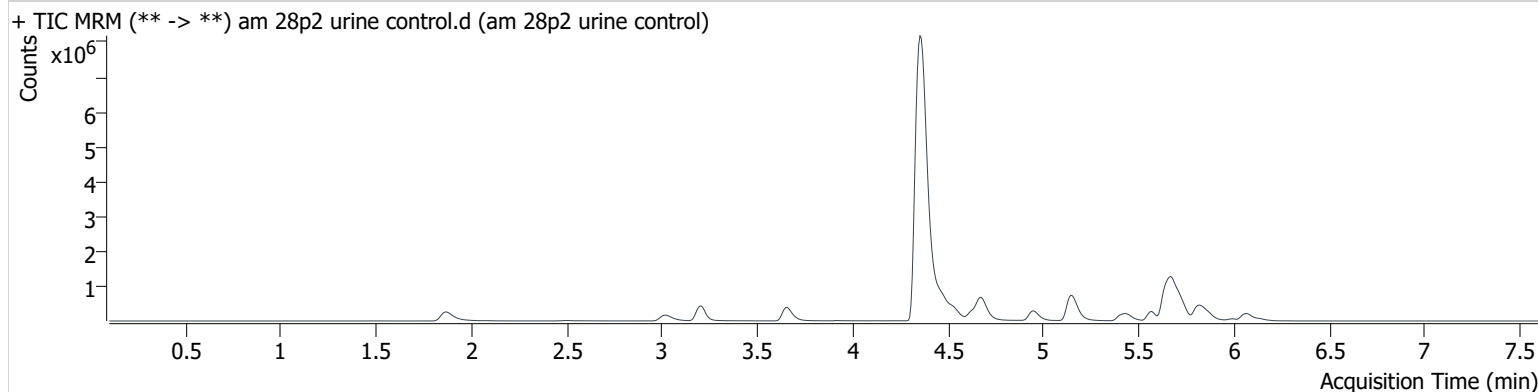
AM #28 Multi-Drug Quant. Results

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Batch results D:\MassHunter\Data\2021\am 27-28\060921r\QuantResults\mdqp2.batch.bin
Calibration Last Update 6/16/2021 1:13:31 PM

Instrument	69679	Data File	am 28p2 urine control.d
Type	Sample	Sample	am 28p2 urine control
Acq. Method	mdqp2 6-10-21.m	Operator	Britany Wylie
Sample Position	P1-B3	Comment	
Injection Volume	5		
Acq. Date-Time	6/10/2021 4:02:20 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Methocarbamol	4.479	1124632	35717.7	81.3	65220.7	572567	621.956 ng/ml

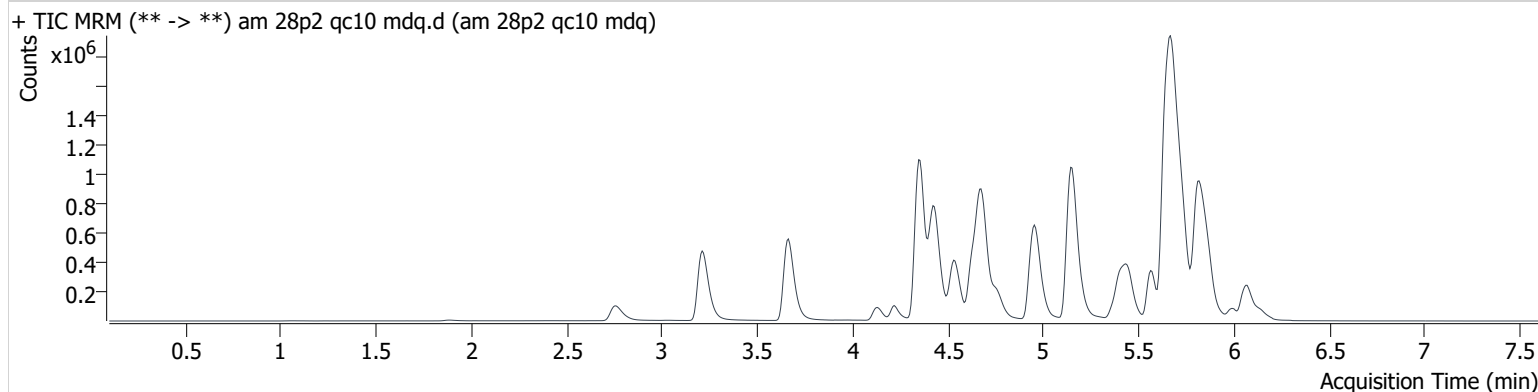
AM #28 Multi-Drug Quant. Results

BWylie

Batch results D:\MassHunter\Data\2021\am 27-28\060921r\QuantResults\mdqp2.batch.bin
Calibration Last Update 6/16/2021 1:13:31 PM

Instrument	69679	Data File	am 28p2 qc10 mdq.d
Type	QC	Sample	am 28p2 qc10 mdq
Acq. Method	mdqp2 6-10-21.m	Operator	Britany Wylie
Sample Position	P1-A2	Comment	
Injection Volume	5		
Acq. Date-Time	6/10/2021 11:03:41 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Amitriptyline	5.704	133315	931.5	91.0	750.9	600788	9.272 ng/ml
Chlorpheniramine	5.154	709898	1215.1	0.5	72.8	1078759	10.156 ng/ml
clomipramine	5.818	201964	1302.9	91.4	4787.2	1151146	10.287 ng/ml
Maprotiline	5.704	143786	1098.8	111.4	2308.4	600788	9.227 ng/ml
Methocarbamol	4.479	36352	629.8	77.6	375.1	1078759	10.211 ng/ml
Midazolam	5.810	62944	998.1	94.5	910.7	839770	9.801 ng/ml
Nortriptyline	5.732	143741	1625.7	34.9	22383.0	534688	10.144 ng/ml
Phencyclidine	4.971	506427	18539.5	77.6	2211.0	1895930	10.243 ng/ml

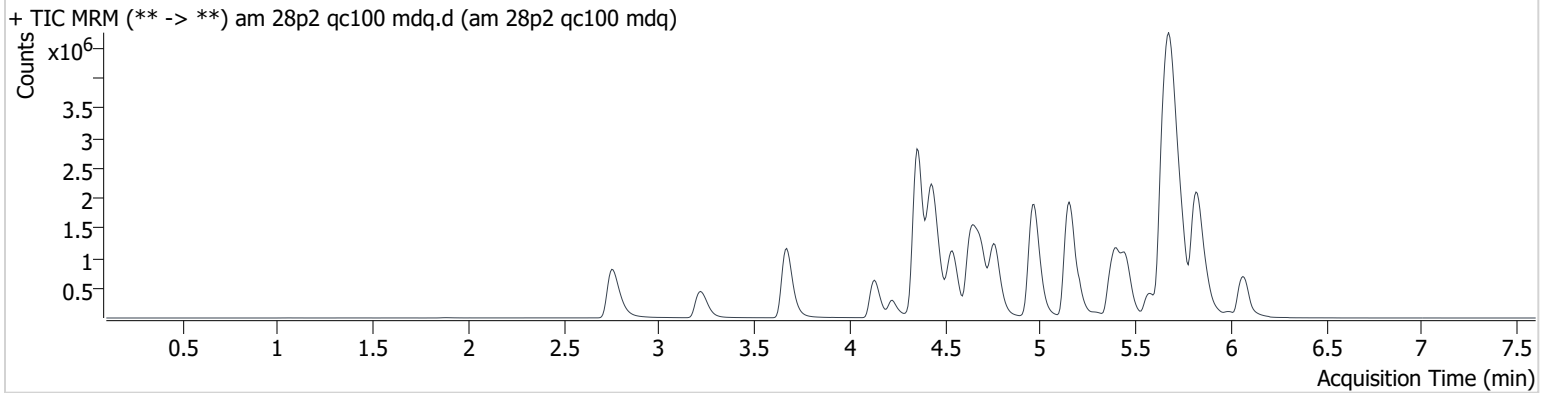
AM #28 Multi-Drug Quant. Results

BWylie

Batch results D:\MassHunter\Data\2021\am 27-28\060921r\QuantResults\mdqp2.batch.bin
Calibration Last Update 6/16/2021 1:13:31 PM

Instrument	69679	Data File	am 28p2 qc100 mdq.d
Type	QC	Sample	am 28p2 qc100 mdq
Acq. Method	mdqp2 6-10-21.m	Operator	Britany Wylie
Sample Position	P1-B2	Comment	
Injection Volume	5		
Acq. Date-Time	6/10/2021 11:14:33 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Amitriptyline	5.711	966456	13398.1	96.0	9457.6	462777	94.533 ng/ml
Chlorpheniramine	5.154	5639078	5762.3	0.5	1521.1	757363	97.218 ng/ml
clomipramine	5.818	1803859	5238.1	93.3	4410.9	1038898	99.876 ng/ml
Maprotiline	5.704	1059143	4676.4	103.8	16530.3	462777	96.575 ng/ml
Methocarbamol	4.479	230287	6720.2	81.6	539.5	757363	95.886 ng/ml
Midazolam	5.810	434875	1730.6	94.5	5923.4	594042	99.769 ng/ml
Nortriptyline	5.732	1129077	5045.2	34.8	7229.2	420653	101.342 ng/ml
Phencyclidine	4.971	3743588	149084.2	78.8	10891.2	1422907	103.240 ng/ml

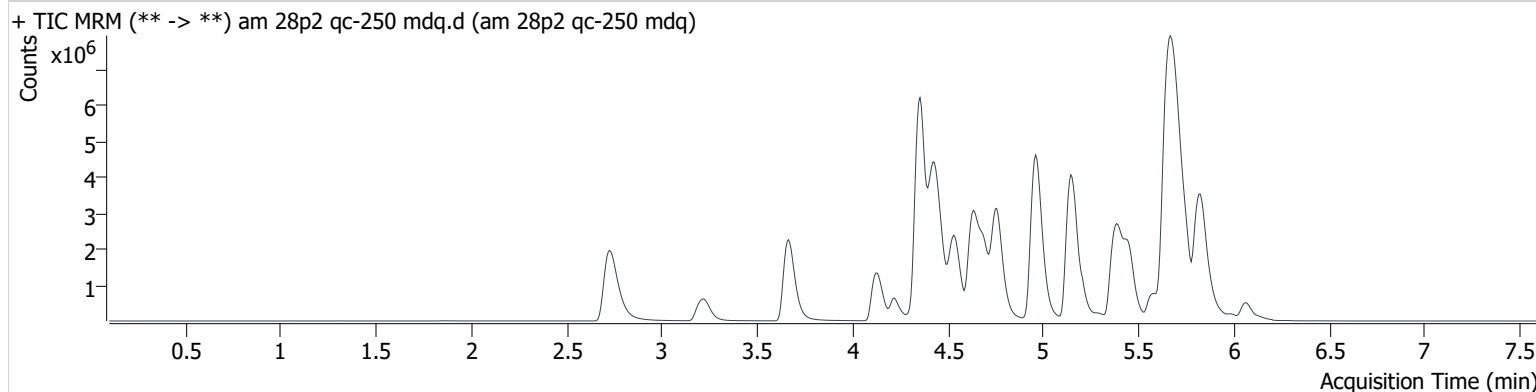
AM #28 Multi-Drug Quant. Results

B. Wylie

Batch results D:\MassHunter\Data\2021\am 27-28\060921r\QuantResults\mdqp2.batch.bin
Calibration Last Update 6/16/2021 1:13:31 PM

Instrument	69679	Data File	am 28p2 qc-250 mdq.d
Type	QC	Sample	am 28p2 qc-250 mdq
Acq. Method	mdqp2 6-10-21.m	Operator	Britany Wylie
Sample Position	P1-C2	Comment	
Injection Volume	5		
Acq. Date-Time	6/10/2021 3:25:04 PM		

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Amitriptyline	5.704	2090798	29021.6	99.8	7584.6	414407	229.606 ng/ml
Chlorpheniramine	5.147	15270290	448569.7	0.5	1355.6	609933	322.842 ng/ml ocr
clomipramine	5.818	4139364	815647.2	92.7	15599.1	943129	252.129 ng/ml
Maprotiline	5.704	2207319	51993.7	90.3	3426.0	414407	226.052 ng/ml
Methocarbamol	4.479	428916	1175.7	81.9	4484.8	609933	222.372 ng/ml
Midazolam	5.803	964763	6979.1	93.0	1668.9	523304	251.957 ng/ml
Nortriptyline	5.732	2295625	1774002.5	34.9	4644.2	335150	258.624 ng/ml
Phencyclidine	4.964	10261954	219248.5	79.9	17255.9	1574745	256.106 ng/ml

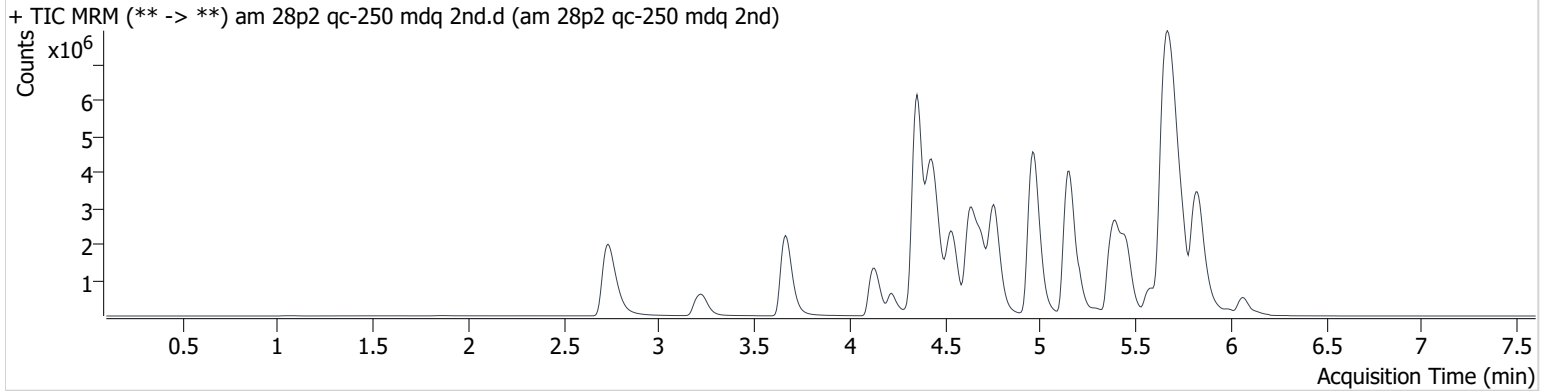
AM #28 Multi-Drug Quant. Results

B. Wylie

Batch results D:\MassHunter\Data\2021\am 27-28\060921r\QuantResults\mdqp2.batch.bin
Calibration Last Update 6/16/2021 1:13:31 PM

Instrument	69679	Data File	am 28p2 qc-250 mdq 2nd.d
Type	QC	Sample	am 28p2 qc-250 mdq 2nd
Acq. Method	mdqp2 6-10-21.m	Operator	Britany Wylie
Sample Position	P1-C2	Comment	
Injection Volume	5		
Acq. Date-Time	6/10/2021 5:07:32 PM		

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Amitriptyline	5.704	2108250	5183.9	98.3	1744.3	413008	232.317 ng/ml
Chlorpheniramine	5.154	15308521	23770.1	0.5	1339.5	599831	329.067 ng/ml ocr
clomipramine	5.818	4093577	4757912.6	93.6	177449.4	945222	248.791 ng/ml
Maprotiline	5.704	2210725	6681.4	89.5	66305.3	413008	227.173 ng/ml
Methocarbamol	4.479	425318	1020.5	82.2	932.2	599831	224.224 ng/ml
Midazolam	5.810	960634	883.3	93.0	1825.9	526563	249.321 ng/ml
Nortriptyline	5.738	2277796	424862.1	34.6	163099.2	338804	253.848 ng/ml
Phencyclidine	4.964	10326264	7425397.3	79.5	28535.1	1573699	257.885 ng/ml

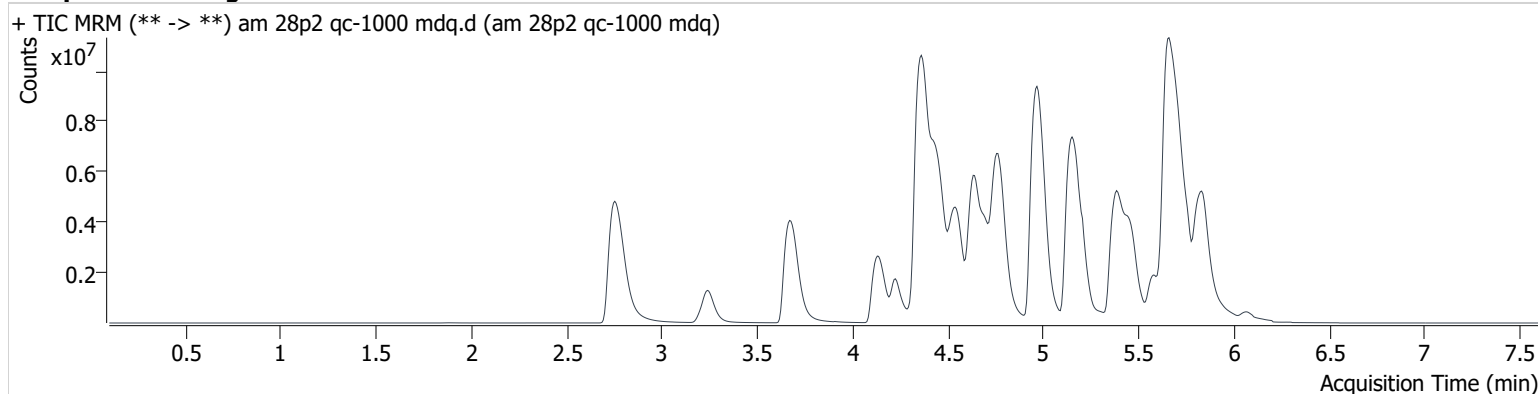
AM #28 Multi-Drug Quant. Results

B. Wylie

Batch results D:\MassHunter\Data\2021\am 27-28\060921r\QuantResults\mdqp2.batch.bin
Calibration Last Update 6/16/2021 1:13:31 PM

Instrument	69679	Data File	am 28p2 qc-1000 mdq.d
Type	QC	Sample	am 28p2 qc-1000 mdq
Acq. Method	mdqp2 6-10-21.m	Operator	Britany Wylie
Sample Position	P1-D2	Comment	
Injection Volume	5		
Acq. Date-Time	6/10/2021 11:25:23 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Amitriptyline	5.711	3833721	2631.2	105.1	∞	200015	874.701 ng/ml
Chlorpheniramine	5.154	40014255	68067.2	0.5	604.8	271381	1892.953 ng/ml <i>ocr</i>
clomipramine	5.825	9167711	155056.8	92.7	94669.1	519241	1013.611 ng/ml
Maprotiline	5.711	3855974	3092.1	76.4 Low	24250.4	200015	820.721 ng/ml <i>ocr</i>
Methocarbamol	4.485	603090	14689.8	83.8	38452.0	271381	703.747 ng/ml <i>ocr</i>
Midazolam	5.796	1801209	3344.8	92.7	1884.6	250898	982.466 ng/ml
Nortriptyline	5.745	3649793	1078.5	35.0	148091.7	136919	1006.510 ng/ml
Phencyclidine	4.971	26486343	56347.9	82.5	44820.2	1068900	974.580 ng/ml

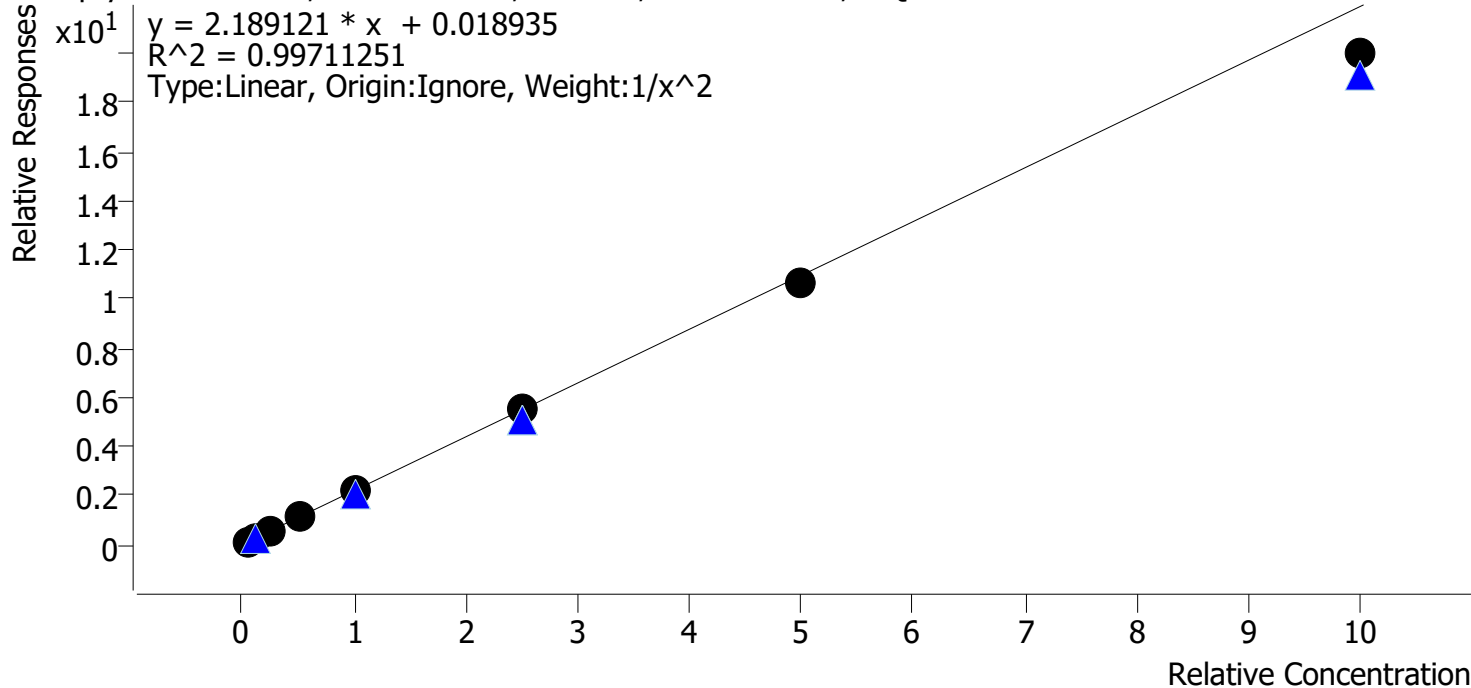
Compound Calibration Report



Bylye

Batch results D:\MassHunter\Data\2021\am 27-28\060921r\QuantResults\mdqp2.batch.bin
Last Cal. Update 6/16/2021 1:13 PM
Analyst Name ISP\datastor
Analyte Amitriptyline **Internal Standard** Amitriptyline-D3

Amitriptyline - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 5 QCs



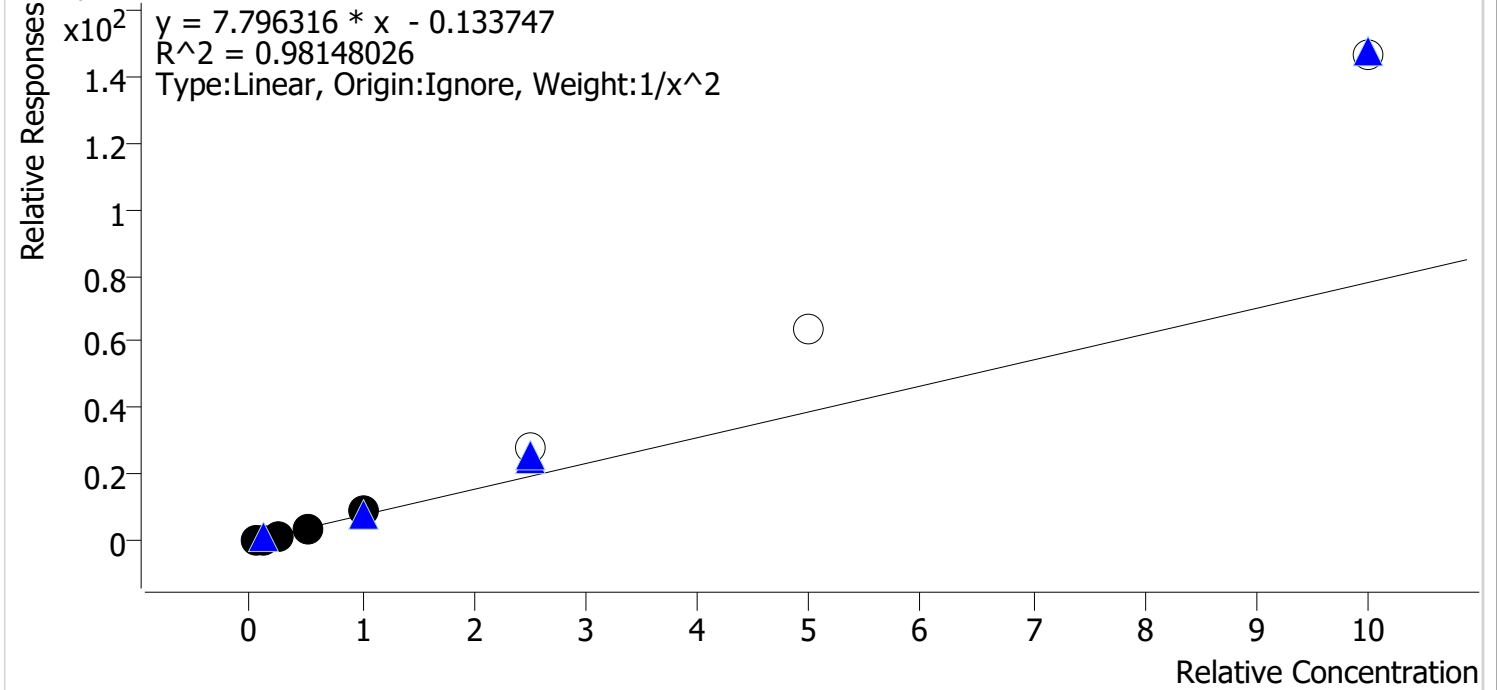
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
am 28p2 cal 1 mdq	1	✓	5.0	4.8	97.0
am 28p2 cal 2 mdq	2	✓	10.0	10.3	103.1
am 28p2 cal 3 mdq	3	✓	25.0	26.3	105.0
am 28p2 cal 4 mdq	4	✓	50.0	52.4	104.7
am 28p2 cal 5 mdq	5	✓	100.0	101.6	101.6
am28p2 cal 6 mdq	6	✓	250.0	250.0	100.0
am 28p2 cal 7 mdq	7	✓	500.0	486.7	97.3
am 28p2 cal 8 mdq	8	✓	1000.0	912.4	91.2

Compound Calibration Report

Byylee

Batch results D:\MassHunter\Data\2021\am 27-28\060921r\QuantResults\mdqp2.batch.bin
Last Cal. Update 6/16/2021 1:13 PM
Analyst Name ISP\datastor
Analyte Chlorpheniramine **Internal Standard** Chlordiazepoxide-D5

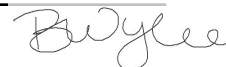
Chlorpheniramine - 8 Levels, 5 Levels Used, 8 Points, 5 Points Used, 5 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
am 28p2 cal 1 mdq	1	✓	5.0	5.3	106.6
am 28p2 cal 2 mdq	2	✓	10.0	8.9	88.6
am 28p2 cal 3 mdq	3	✓	25.0	23.3	93.1
am 28p2 cal 4 mdq	4	✓	50.0	48.5	96.9
am 28p2 cal 5 mdq	5	✓	100.0	114.7	114.7
am 28p2 cal 6 mdq	6	✗	250.0	355.7	142.3
am 28p2 cal 7 mdq	7	✗	500.0	823.7	164.7
am 28p2 cal 8 mdq	8	✗	1000.0	1876.8	187.7

cal 6, 7 and 8 did not meet accuracy requirements

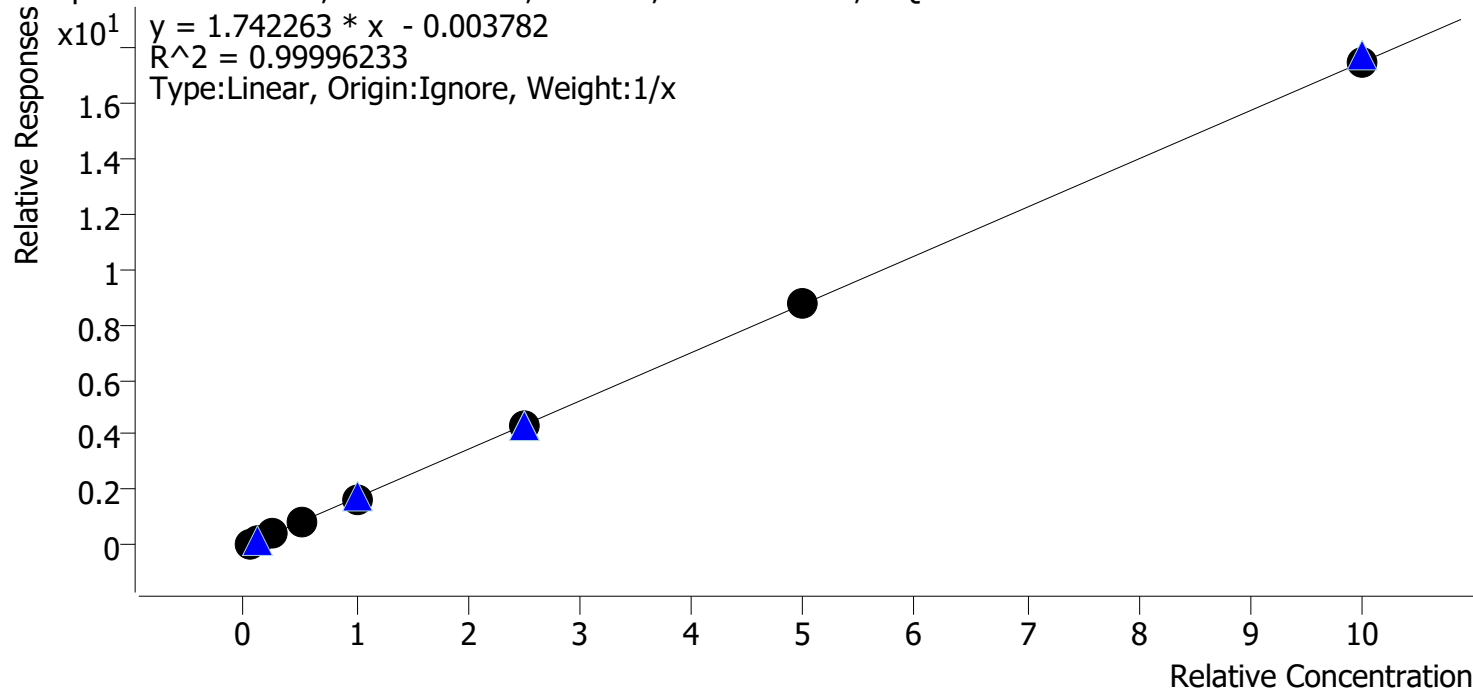
Compound Calibration Report



Batch results D:\MassHunter\Data\2021\am 27-28\060921r\QuantResults\mdqp2.batch.bin
Last Cal. Update 6/16/2021 1:13 PM
Analyst Name ISP\datastor
Analyte clomipramine

Internal Standard clomipramine-d3

clomipramine - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 5 QCs



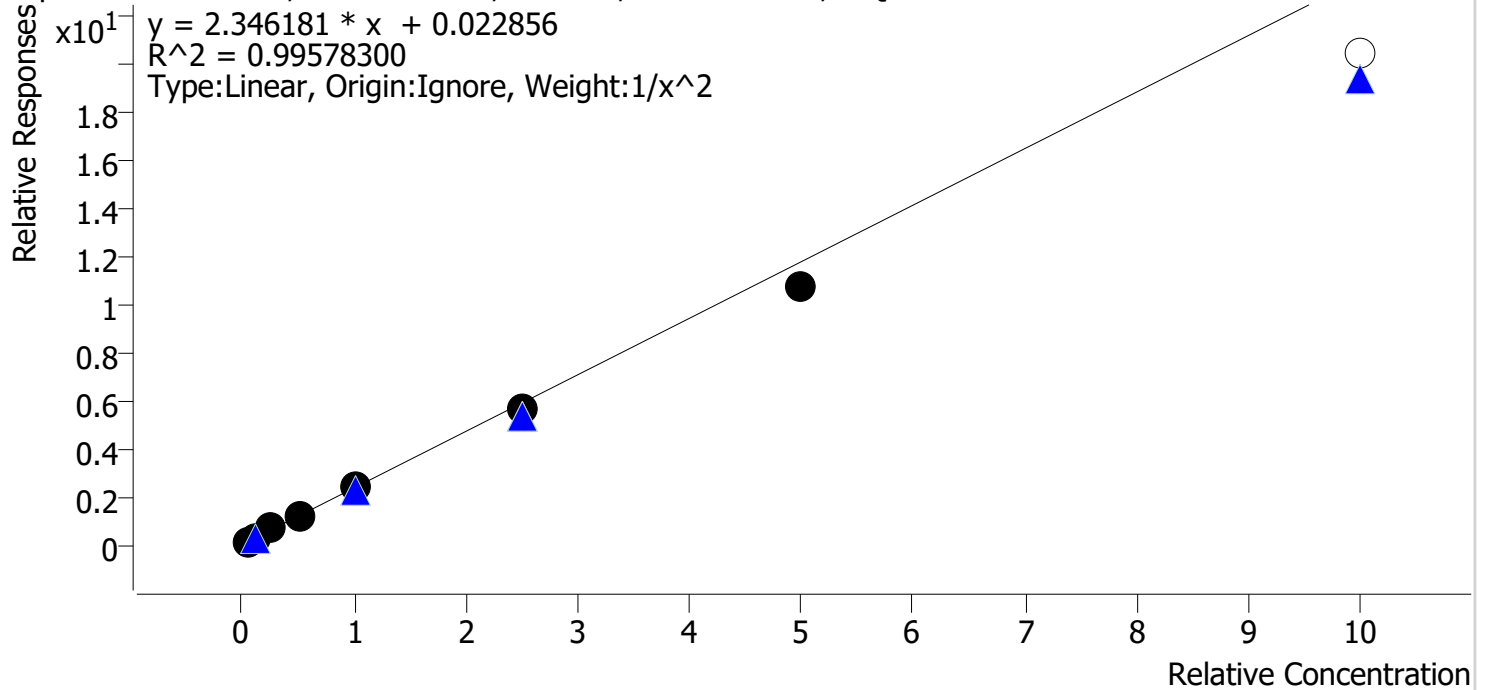
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
am 28p2 cal 1 mdq	1	✓	5.0	5.1	102.1
am 28p2 cal 2 mdq	2	✓	10.0	10.1	100.8
am 28p2 cal 3 mdq	3	✓	25.0	25.0	100.1
am 28p2 cal 4 mdq	4	✓	50.0	49.3	98.6
am 28p2 cal 5 mdq	5	✓	100.0	98.9	98.9
am28p2 cal 6 mdq	6	✓	250.0	247.3	98.9
am 28p2 cal 7 mdq	7	✓	500.0	501.4	100.3
am 28p2 cal 8 mdq	8	✓	1000.0	1002.9	100.3

Compound Calibration Report

Byylee

Batch results D:\MassHunter\Data\2021\am 27-28\060921r\QuantResults\mdqp2.batch.bin
Last Cal. Update 6/16/2021 1:13 PM
Analyst Name ISP\datastor
Analyte Maprotiline **Internal Standard** Amitriptyline-D3

Maprotiline - 8 Levels, 7 Levels Used, 8 Points, 7 Points Used, 5 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
am 28p2 cal 1 mdq	1	✓	5.0	4.8	96.2
am 28p2 cal 2 mdq	2	✓	10.0	10.4	104.3
am 28p2 cal 3 mdq	3	✓	25.0	26.7	106.7
am 28p2 cal 4 mdq	4	✓	50.0	52.1	104.3
am 28p2 cal 5 mdq	5	✓	100.0	100.6	100.6
am28p2 cal 6 mdq	6	✓	250.0	240.8	96.3
am 28p2 cal 7 mdq	7	✓	500.0	457.9	91.6
am 28p2 cal 8 mdq	8	✗	1000.0	868.0	86.8

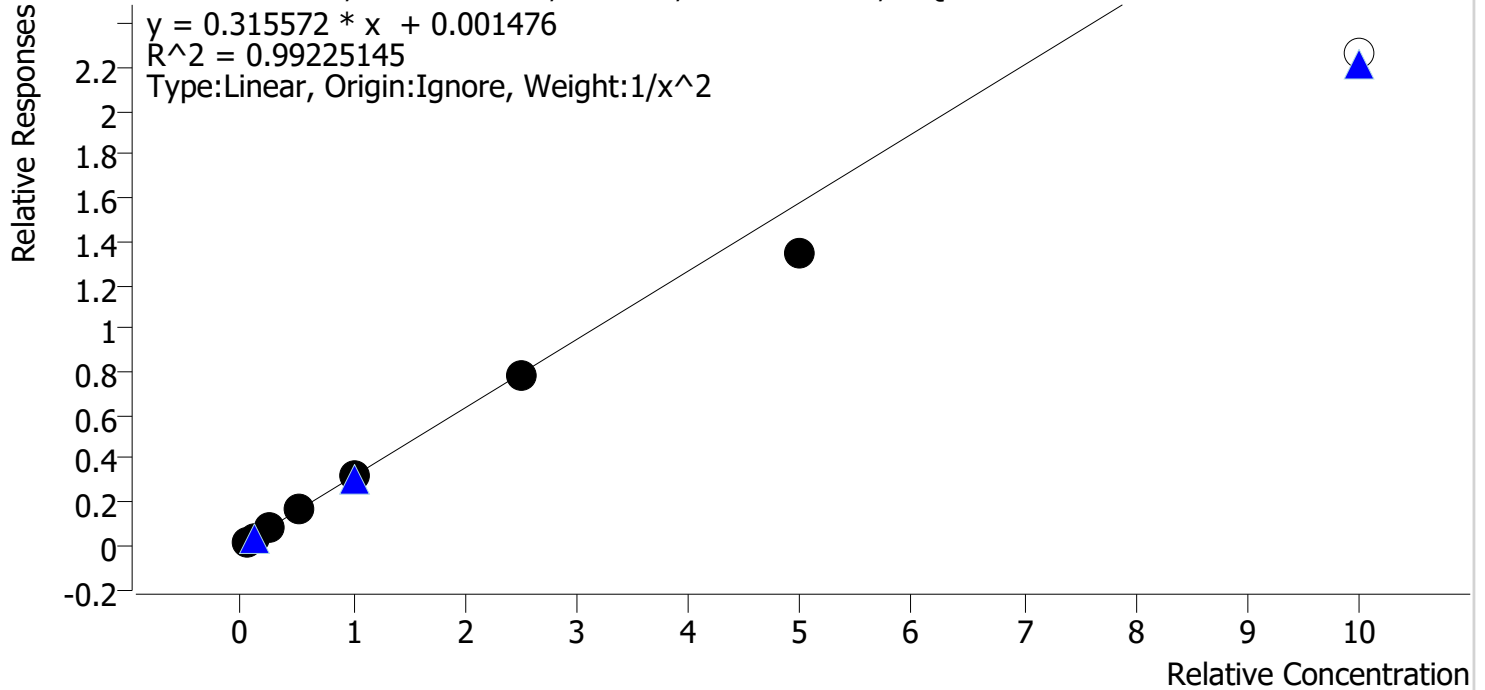
cal 8 did not meet accuracy requirement

Compound Calibration Report

Bylye

Batch results D:\MassHunter\Data\2021\am 27-28\060921r\QuantResults\mdqp2.batch.bin
Last Cal. Update 6/16/2021 1:13 PM
Analyst Name ISP\datastor
Analyte Methocarbamol **Internal Standard** **Chlordiazepoxide-D5**

Methocarbamol - 8 Levels, 7 Levels Used, 8 Points, 7 Points Used, 5 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
am 28p2 cal 1 mdq	1	✓	5.0	4.8	96.8
am 28p2 cal 2 mdq	2	✓	10.0	10.3	102.7
am 28p2 cal 3 mdq	3	✓	25.0	26.5	105.8
am 28p2 cal 4 mdq	4	✓	50.0	53.6	107.2
am 28p2 cal 5 mdq	5	✓	100.0	103.7	103.7
am28p2 cal 6 mdq	6	✓	250.0	246.3	98.5
am 28p2 cal 7 mdq	7	✓	500.0	426.6	85.3
am 28p2 cal 8 mdq	8	✗	1000.0	717.0	71.7

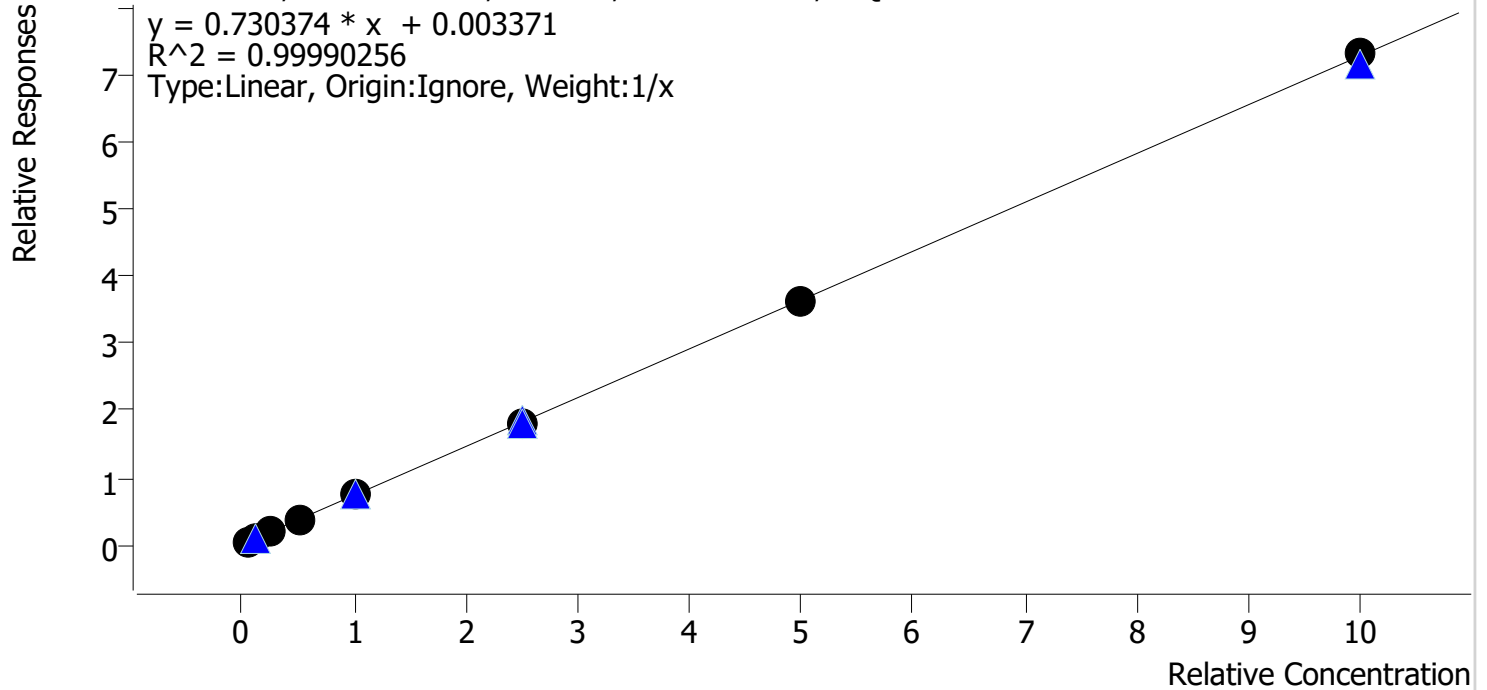
cal 8 did not meet accuracy requirement

Compound Calibration Report

B. Wylee

Batch results D:\MassHunter\Data\2021\am 27-28\060921r\QuantResults\mdqp2.batch.bin
Last Cal. Update 6/16/2021 1:13 PM
Analyst Name ISP\datastor
Analyte Midazolam **Internal Standard** Midazolam-D4

Midazolam - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 5 QCs



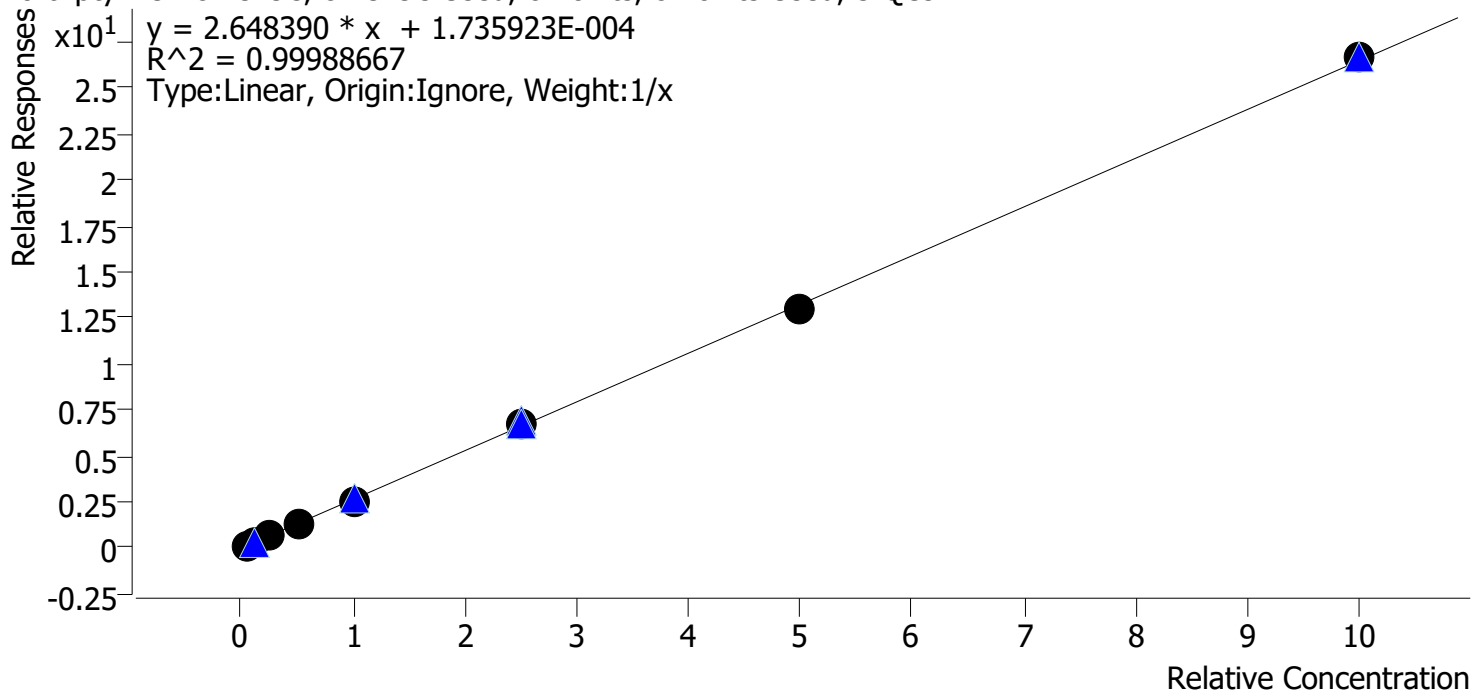
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
am 28p2 cal 1 mdq	1	✓	5.0	4.8	96.2
am 28p2 cal 2 mdq	2	✓	10.0	10.1	100.8
am 28p2 cal 3 mdq	3	✓	25.0	25.4	101.4
am 28p2 cal 4 mdq	4	✓	50.0	51.6	103.2
am 28p2 cal 5 mdq	5	✓	100.0	99.0	99.0
am28p2 cal 6 mdq	6	✓	250.0	250.4	100.1
am 28p2 cal 7 mdq	7	✓	500.0	493.9	98.8
am 28p2 cal 8 mdq	8	✓	1000.0	1004.9	100.5

Compound Calibration Report



Batch results D:\MassHunter\Data\2021\am 27-28\060921r\QuantResults\mdqp2.batch.bin
Last Cal. Update 6/16/2021 1:13 PM
Analyst Name ISP\datastor
Analyte Nortriptyline **Internal Standard** Nortriptyline-d3

Nortriptyline - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 5 QCs



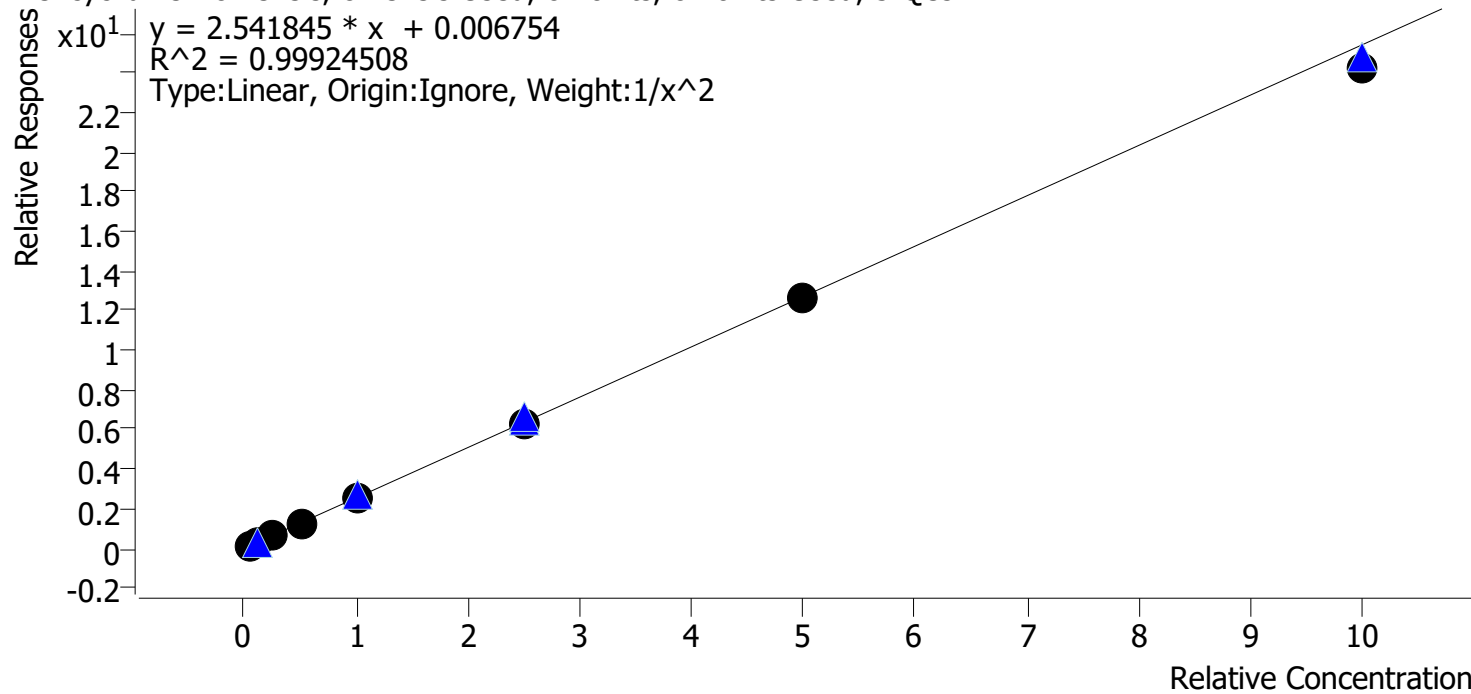
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
am 28p2 cal 1 mdq	1	✓	5.0	4.8	96.9
am 28p2 cal 2 mdq	2	✓	10.0	10.4	103.8
am 28p2 cal 3 mdq	3	✓	25.0	25.5	102.0
am 28p2 cal 4 mdq	4	✓	50.0	49.7	99.5
am 28p2 cal 5 mdq	5	✓	100.0	97.8	97.8
am28p2 cal 6 mdq	6	✓	250.0	251.6	100.7
am 28p2 cal 7 mdq	7	✓	500.0	494.0	98.8
am 28p2 cal 8 mdq	8	✓	1000.0	1006.1	100.6

Compound Calibration Report

Boyle

Batch results D:\MassHunter\Data\2021\am 27-28\060921r\QuantResults\mdqp2.batch.bin
Last Cal. Update 6/16/2021 1:13 PM
Analyst Name ISP\datastor
Analyte Phencyclidine **Internal Standard** Phencyclidine-D5

Phencyclidine - 8 Levels, 8 Levels Used, 8 Points, 8 Points Used, 5 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
am 28p2 cal 1 mdq	1	✓	5.0	4.9	97.8
am 28p2 cal 2 mdq	2	✓	10.0	10.3	103.4
am 28p2 cal 3 mdq	3	✓	25.0	25.5	102.0
am 28p2 cal 4 mdq	4	✓	50.0	50.3	100.6
am 28p2 cal 5 mdq	5	✓	100.0	100.9	100.9
am28p2 cal 6 mdq	6	✓	250.0	249.7	99.9
am 28p2 cal 7 mdq	7	✓	500.0	498.4	99.7
am 28p2 cal 8 mdq	8	✓	1000.0	957.4	95.7

AM #28 Multi-Drug Quant. Results

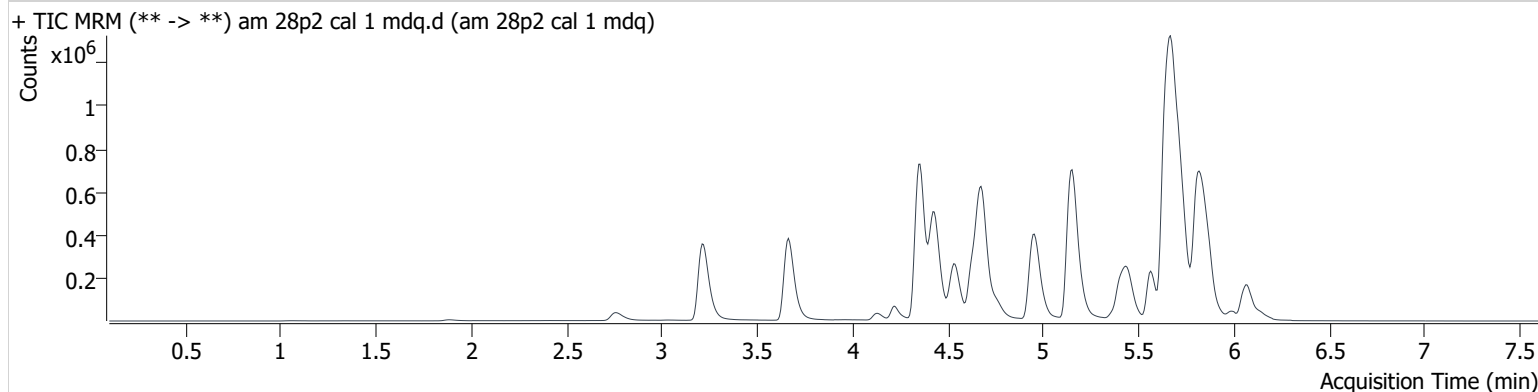
B. Wylie

Batch results D:\MassHunter\Data\2021\am 27-28\060921r\QuantResults\mdqp2.batch.bin
Calibration Last Update 6/16/2021 1:13:31 PM

Instrument	69679	Data File	am 28p2 cal 1 mdq.d
Type	Cal	Sample	am 28p2 cal 1 mdq
Acq. Method	mdqp2 6-10-21.m	Operator	Britany Wylie
Sample Position	P1-A1	Comment	
Injection Volume	5		
Acq. Date-Time	6/10/2021 9:04:42 AM		

Sample Info.

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Amitriptyline	5.704	56985	791.1	89.0	303.2	455626	4.848 ng/ml
Chlorpheniramine	5.154	252484	1027.0	0.5	16.6	895466	5.332 ng/ml
clomipramine	5.818	83178	3244.2	93.4	1971.8	976920	5.104 ng/ml
Maprotiline	5.704	61825	35566.2	111.4	26607.0	455626	4.809 ng/ml
Methocarbamol	4.479	14994	224.5	82.9	220.7	895466	4.838 ng/ml
Midazolam	5.803	24559	4659.3	92.9	6711.7	638085	4.808 ng/ml
Nortriptyline	5.732	57437	31021.5	36.0	10866.1	447119	4.844 ng/ml
Phencyclidine	4.971	180020	1034.8	76.4	1375.7	1373395	4.891 ng/ml

AM #28 Multi-Drug Quant. Results

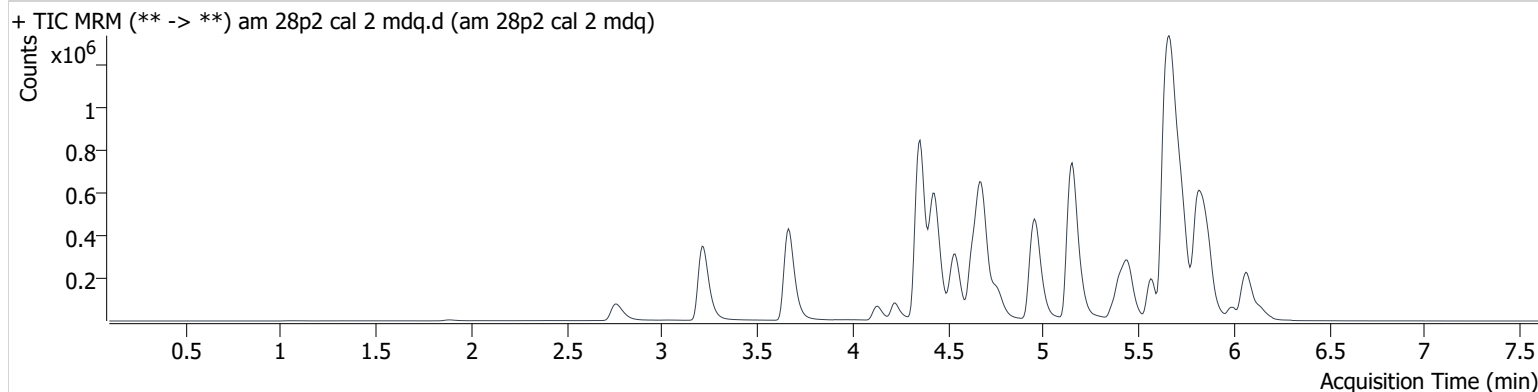
B. Wylie

Batch results D:\MassHunter\Data\2021\am 27-28\060921r\QuantResults\mdqp2.batch.bin
Calibration Last Update 6/16/2021 1:13:31 PM

Instrument	69679	Data File	am 28p2 cal 2 mdq.d
Type	Cal	Sample	am 28p2 cal 2 mdq
Acq. Method	mdqp2 6-10-21.m	Operator	Britany Wylie
Sample Position	P1-B1	Comment	
Injection Volume	5		
Acq. Date-Time	6/10/2021 9:15:34 AM		

Sample Info.

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Amitriptyline	5.711	79099	1658.8	94.1	492.4	323342	10.310 ng/ml
Chlorpheniramine	5.154	507827	26233.7	0.5	141.4	911314	8.863 ng/ml
clomipramine	5.818	84114	2559.2	94.7	539.9	489340	10.083 ng/ml
Maprotiline	5.704	86544	646.8	107.5	68747.5	323342	10.434 ng/ml
Methocarbamol	4.479	30875	257.0	76.0	451.9	911314	10.268 ng/ml
Midazolam	5.803	47795	10806.9	92.5	18799.2	620986	10.076 ng/ml
Nortriptyline	5.732	69447	33576.1	34.0	74.6	252541	10.377 ng/ml
Phencyclidine	4.971	373597	1149.3	76.0	1123.1	1385936	10.339 ng/ml

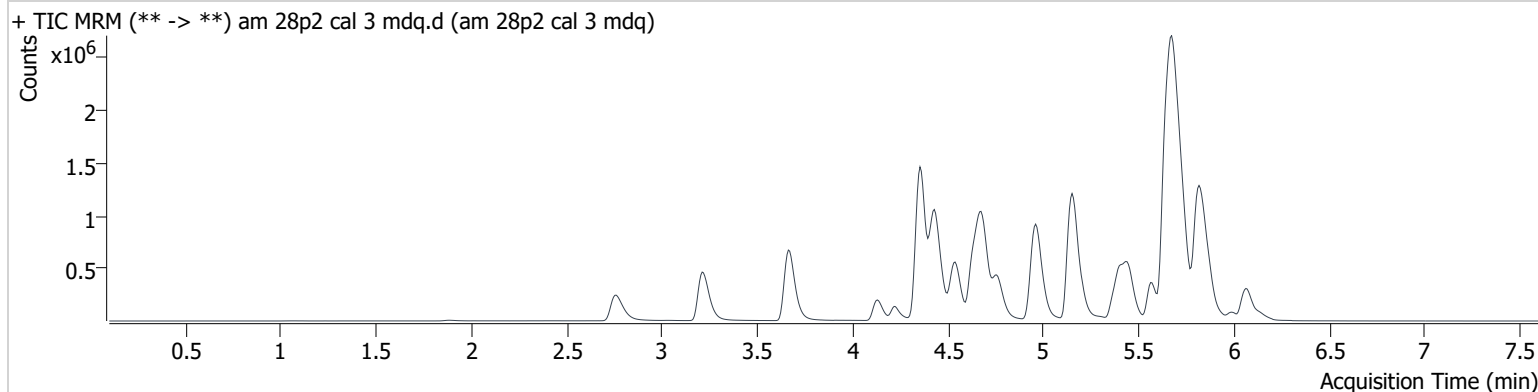
AM #28 Multi-Drug Quant. Results

B. Wylie

Batch results D:\MassHunter\Data\2021\am 27-28\060921r\QuantResults\mdqp2.batch.bin
Calibration Last Update 6/16/2021 1:13:31 PM

Instrument	69679	Data File	am 28p2 cal 3 mdq.d
Type	Cal	Sample	am 28p2 cal 3 mdq
Acq. Method	mdqp2 6-10-21.m	Operator	Britany Wylie
Sample Position	P1-C1	Comment	
Injection Volume	5		
Acq. Date-Time	6/10/2021 9:26:25 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Amitriptyline	5.704	357772	8129.2	96.4	950.5	602718	26.251 ng/ml
Chlorpheniramine	5.154	1700953	639292.9	0.5	187.7	1012352	23.267 ng/ml
clomipramine	5.818	561198	1751.1	93.1	2683.3	1298738	25.019 ng/ml
Maprotiline	5.704	391064	2742.0	107.8	5067.9	602718	26.681 ng/ml
Methocarbamol	4.479	86011	1204.4	77.7	753.9	1012352	26.456 ng/ml
Midazolam	5.803	149811	1880.0	95.2	59213.4	794360	25.360 ng/ml
Nortriptyline	5.732	380517	10255.3	34.7	3154.2	563027	25.512 ng/ml
Phencyclidine	4.971	1198741	1257.3	77.7	12328.0	1829568	25.511 ng/ml

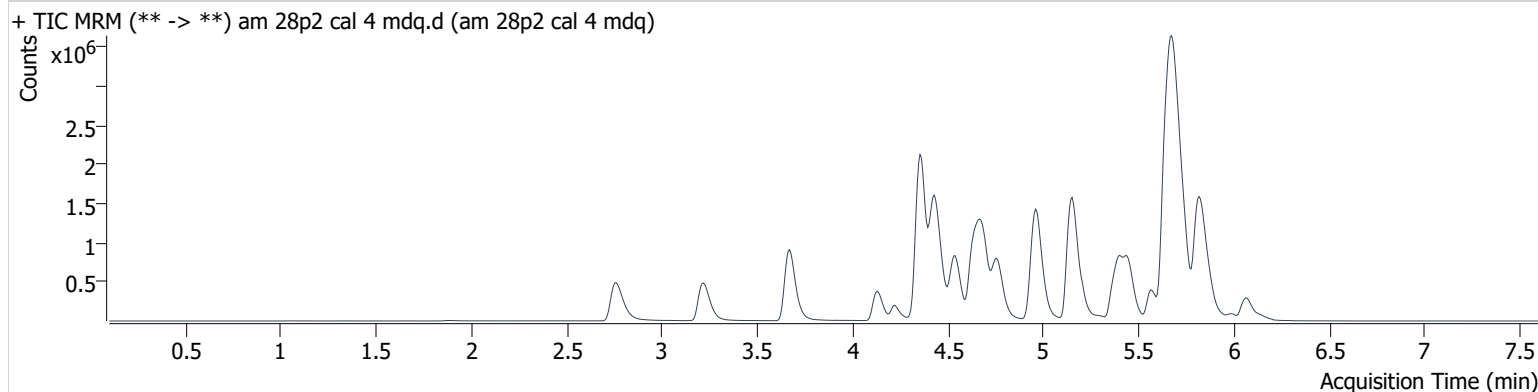
AM #28 Multi-Drug Quant. Results

B. Wylie

Batch results D:\MassHunter\Data\2021\am 27-28\060921r\QuantResults\mdqp2.batch.bin
Calibration Last Update 6/16/2021 1:13:31 PM

Instrument	69679	Data File	am 28p2 cal 4 mdq.d
Type	Cal	Sample	am 28p2 cal 4 mdq
Acq. Method	mdqp2 6-10-21.m	Operator	Britany Wylie
Sample Position	P1-D1	Comment	
Injection Volume	5		
Acq. Date-Time	6/10/2021 9:37:15 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Amitriptyline	5.704	651534	5420.5	96.1	1599.0	559141	52.364 ng/ml
Chlorpheniramine	5.154	3391851	1294.2	0.5	454.7	930556	48.468 ng/ml
clomipramine	5.818	956317	95495.2	93.0	5281.5	1117894	49.318 ng/ml
Maprotiline	5.704	696753	3226.0	104.7	6162.9	559141	52.138 ng/ml
Methocarbamol	4.479	158782	1854.2	79.5	1366.8	930556	53.603 ng/ml
Midazolam	5.803	288276	2136.8	93.2	1606.7	758077	51.604 ng/ml
Nortriptyline	5.732	637843	393162.0	35.1	2381.3	484156	49.738 ng/ml
Phencyclidine	4.971	2402260	15490.9	78.8	7093.9	1869652	50.283 ng/ml

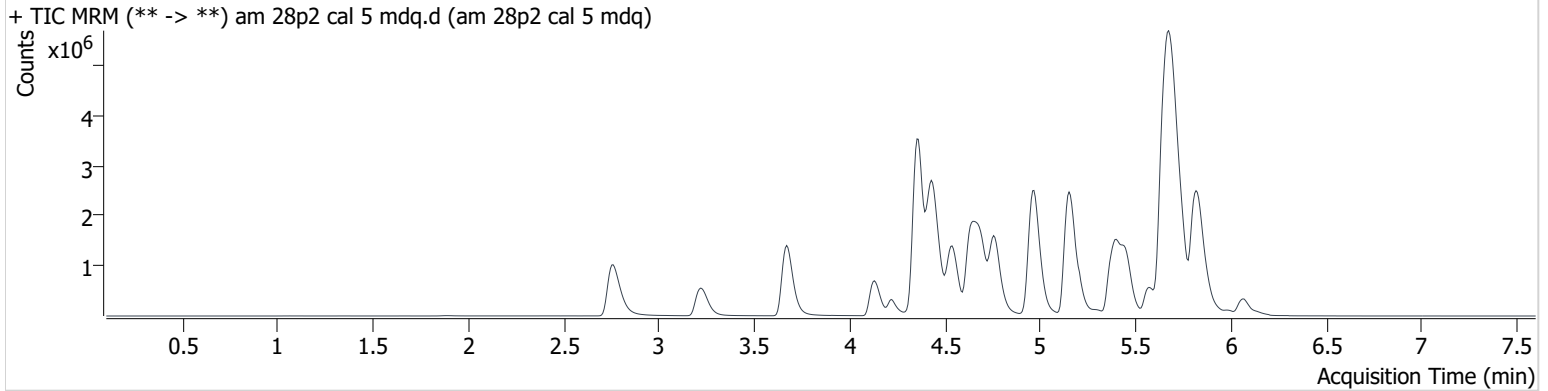
AM #28 Multi-Drug Quant. Results

B. Wylie

Batch results D:\MassHunter\Data\2021\am 27-28\060921r\QuantResults\mdqp2.batch.bin
Calibration Last Update 6/16/2021 1:13:31 PM

Instrument	69679	Data File	am 28p2 cal 5 mdq.d
Type	Cal	Sample	am 28p2 cal 5 mdq
Acq. Method	mdqp2 6-10-21.m	Operator	Britany Wylie
Sample Position	P1-E1	Comment	
Injection Volume	5		
Acq. Date-Time	6/10/2021 9:48:05 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Amitriptyline	5.704	1328431	151286.0	99.1	1665.0	592031	101.635 ng/ml
Chlorpheniramine	5.154	7362138	47714.3	0.5	1323.2	835603	114.725 ng/ml
clomipramine	5.818	2354697	269607.0	92.8	3303.5	1369460	98.907 ng/ml
Maprotiline	5.704	1410562	6964.5	97.9	28262.7	592031	100.577 ng/ml
Methocarbamol	4.479	274664	2076.3	82.4	2009.0	835603	103.693 ng/ml
Midazolam	5.803	535285	1387.4	94.1	991.1	736821	99.005 ng/ml
Nortriptyline	5.732	1350551	657095.8	35.4	3746.6	521620	97.756 ng/ml
Phencyclidine	4.971	4996390	272495.6	78.9	10775.4	1943243	100.888 ng/ml

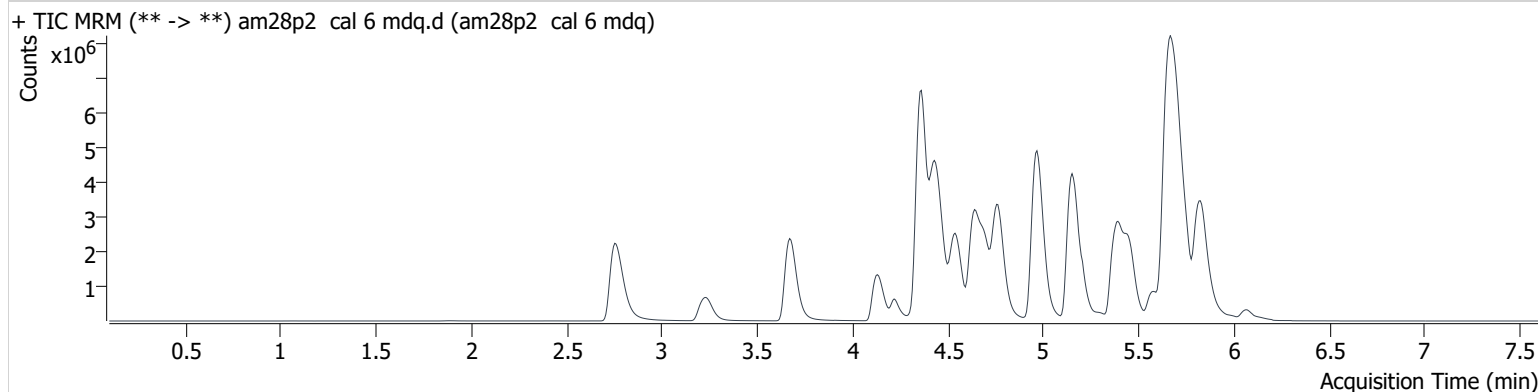
AM #28 Multi-Drug Quant. Results

B. Wylie

Batch results D:\MassHunter\Data\2021\am 27-28\060921r\QuantResults\mdqp2.batch.bin
Calibration Last Update 6/16/2021 1:13:31 PM

Instrument	69679	Data File	am28p2 cal 6 mdq.d
Type	Cal	Sample	am28p2 cal 6 mdq
Acq. Method	mdqp2 6-10-21.m	Operator	Britany Wylie
Sample Position	P1-F1	Comment	
Injection Volume	5		
Acq. Date-Time	6/10/2021 9:58:55 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Amitriptyline	5.711	2378241	44099.2	102.0	8049.8	433067	249.995 ng/ml
Chlorpheniramine	5.154	16915358	2332.9	0.5	524.6	612921	355.703 ng/ml
clomipramine	5.825	4110059	12803.4	94.0	51636.3	954928	247.255 ng/ml
Maprotiline	5.704	2456284	3439.8	84.6	18196.2	433067	240.773 ng/ml
Methocarbamol	4.485	477247	3302.7	80.6	243376.1	612921	246.273 ng/ml
Midazolam	5.803	1060225	2213.7	92.3	3015.3	578728	250.368 ng/ml
Nortriptyline	5.738	2224224	35114.0	34.8	44113.3	333743	251.636 ng/ml
Phencyclidine	4.971	11214554	4414.0	80.6	3010.3	1765140	249.685 ng/ml

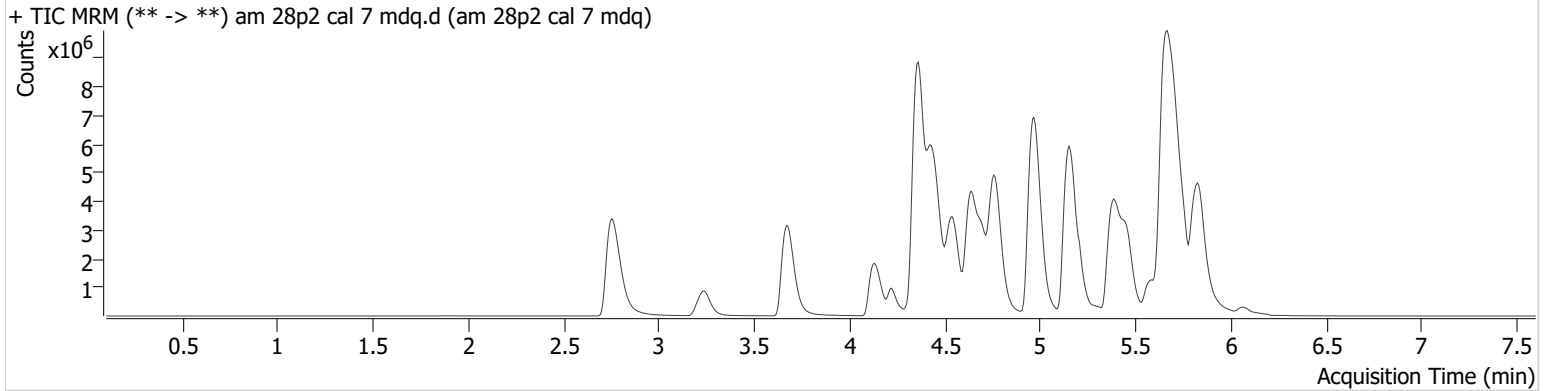
AM #28 Multi-Drug Quant. Results

B. Wylie

Batch results D:\MassHunter\Data\2021\am 27-28\060921r\QuantResults\mdqp2.batch.bin
Calibration Last Update 6/16/2021 1:13:31 PM

Instrument	69679	Data File	am 28p2 cal 7 mdq.d
Type	Cal	Sample	am 28p2 cal 7 mdq
Acq. Method	mdqp2 6-10-21.m	Operator	Britany Wylie
Sample Position	P1-G1	Comment	
Injection Volume	5		
Acq. Date-Time	6/10/2021 10:09:44 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Amitriptyline	5.711	3317852	40718.7	105.2	1717.5	310885	486.650 ng/ml
Chlorpheniramine	5.154	26976008	206019.7	0.4	5064.3	420956	823.678 ng/ml
clomipramine	5.825	6857599	208155.2	93.9	3550.8	785387	501.375 ng/ml
Maprotiline	5.711	3347272	4110.6	79.6	46808.8	310885	457.939 ng/ml
Methocarbamol	4.485	567331	6895.3	82.4	7435.3	420956	426.606 ng/ml
Midazolam	5.803	1407360	3183.5	94.1	2402.9	389759	493.921 ng/ml
Nortriptyline	5.739	3017094	78450.0	35.1	116317.2	230595	494.028 ng/ml
Phencyclidine	4.971	17310377	482887.0	81.1	9764.8	1365713	498.387 ng/ml

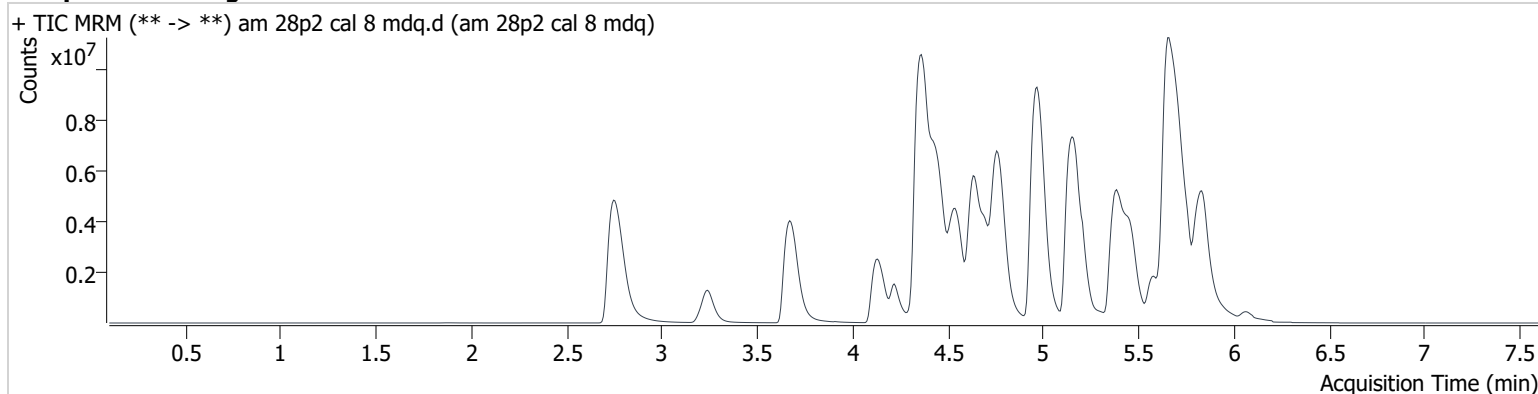
AM #28 Multi-Drug Quant. Results

B. Wylie

Batch results D:\MassHunter\Data\2021\am 27-28\060921r\QuantResults\mdqp2.batch.bin
Calibration Last Update 6/16/2021 1:13:31 PM

Instrument	69679	Data File	am 28p2 cal 8 mdq.d
Type	Cal	Sample	am 28p2 cal 8 mdq
Acq. Method	mdqp2 6-10-21.m	Operator	Britany Wylie
Sample Position	P1-H1	Comment	
Injection Volume	5		
Acq. Date-Time	6/10/2021 10:31:19 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Amitriptyline	5.711	4053745	51830.3	108.4	763.5	202760	912.415 ng/ml
Chlorpheniramine	5.154	39519316	173972.7	0.5	304.7	270338	1876.764 ng/ml
clomipramine	5.825	8606154	109940.3	93.4	60382.0	492623	1002.939 ng/ml
Maprotiline	5.711	4133796	2032.3	74.1 Low	55433.0	202760	867.996 ng/ml
Methocarbamol	4.485	612093	3172.3	83.0	43220.6	270338	717.016 ng/ml
Midazolam	5.796	1893173	2201.1	91.9	2317.4	257834	1004.858 ng/ml
Nortriptyline	5.745	3436794	89485.4	35.2	7482.5	128980	1006.109 ng/ml
Phencyclidine	4.971	25883034	1020996.3	82.2	48940.2	1063321	957.373 ng/ml