REVIEWED
By Tamara Salazar at 10:53 am, Sep 16, 2022

9/12/2022

Worklist: 6100

LAB_CASE	ITEM	ITEM_TYPE	DESCRIPTION	
P2022-2113	2	BCK	AM 28 Blood Multi-Drug Quant Panel 2 by LC-QQQ	
P2022-2113	3	BCK	AM 28 Blood Multi-Drug Quant Panel 2 by LC-QQQ	
P2022-2113	5	BCK	AM 28 Blood Multi-Drug Quant Panel 2 by LC-QQQ	
P2022-2113	6	BCK	AM 28 Blood Multi-Drug Quant Panel 2 by LC-QQQ	
P2022-2113	7	BCK	AM 28 Blood Multi-Drug Quant Panel 2 by LC-QQQ	
P2022-2527	1	BCK	AM 28 Blood Multi-Drug Quant Panel 2 by LC-QQQ	
P2022-2681	1	BCK	AM 28 Blood Multi-Drug Quant Panel 2 by LC-QQQ	

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

Extraction Date: 09/09/2022
Plate lot#: 220816
Mobile phase A: 5mM Amm Form + 0.01% FA
Blank Blood Lot: Lampire 22B52015-1
LCMS-QQQ ID: 069901

Analyst: Celena Shrum
Plate Retest Date: 02/16/2023
Mobile phase B: 0.01% Formic Acid in MeOH
Column: Agilent 120 EC-C18 (2.1x 100-2.7um)

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) or 250µL hydrolyzed urine** in wells of analytical (standards) plate. **Pipette ID: #42**
☐ 3. Place on shaking incubator at ambient temp., 900rpm for 15 minutes. (SKIPPED PER DEVIATION)
☒ 4. Pipette **250µL 0.5 M 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)***
☒ 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.
☒ 16. Add 50 ul 1% HCl in MeOH to all wells with samples.
☒ 17. Place on SPE Dry and evaporate to dryness at approx. 35°C.
☒ 18. 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^2 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.

Compounds evaluated: 10-Hydroxycarbamazepine, alpha-hydroxymidazolam 5-500 (cal 8 removed due to accuracy), amitriptyline, carbamazepine, maprotiline 5-100 (cals 6, 7, and 8 removed due to accuracy), midazolam, nortriptiline, and topiramate 5-100 (cals 6, 7, and 8 removed due to accuracy).

P2022-2113-5 and P2022-2681-1 were reinjected due to carryover in the blank before the sample.

Maprotiline not evaluated in the reinjected samples due to the ratio being out in the QC100 reinject.

Idaho State Police
Forensic Services

Request for Departure from an Analytical Method or Quality Standard

Deviation Number (assigned by QM): TOX-22-01

Date of Request: **2/3/2022**

Requestor/Discipline: Celena Shrum/Toxicology

Analytical Method/Quality Standard, Revision #: AM #25, AM #28, AM #29, Revision 13

Temporary or Permanent Deviation: Permanent

Scope of Deviation (record specific information, e.g. affected programs, evidence types, expected end date; etc): Deviation will remain in place until the change is made in the next method revision.

Deviation Request (Describe detailed instructions of the changes being made; include reference to specific section number(s) in the method manual): 4.1.4 (Place plate on shaking incubator at approximately 900 rpm for approximately 15 minutes) of AM #25, AM # 28, and AM #29 is being removed. The removal of this step was tested in the validation "Addition of Compounds/Modifications for the MDS" (approved on 2/2/2022) and it was determined that that step is not necessary and can be removed.

Technical Justification for Analytical Method Deviations: Refer to validation "Addition of Compounds/Modifications for the MDS" (approved on 2/2/2022)

Technical Review

☒ Departure approved
Comments:

☐ Departure Not Approved
Comments:

Approver: Rachel Cutler Date: 2/10/2022
Title: Laboratory Manager

Quality Review

Quality Approver: Jason Crowe
Title: Quality Manager
Date: 2/10/2022

	1	2	3	4	5	6	7	8	9	10	11	12
A										USED FOR ISTD BLANK	P2022-2113-3	IS + Cal. 8
B										USED FOR ISTD BLANK	P2022-2113-2	IS + Cal. 7
C										USED FOR ISTD BLANK	Blood NEG	IS + Cal. 6
D										P2022-2527-1	USED FOR ISTD BLANK	IS + Cal. 5
E										P2022-2681-1	IS + QC_4	IS + Cal. 4
F										P2022-2113-7	IS + QC_3	IS + Cal. 3
G										P2022-2113-6	IS + QC_2	IS + Cal. 2
H										P2022-2113-5	IS + QC_1	IS + Cal. 1

	1	2	3	4	5	6	7	8	9	10	11	12
A							IS + Cal. 8 (P2)	P2022-2113-3 (P2)	P2022-2747-1	P2022-2113-4	M2022-3195-1	IS + Cal. 8
B							IS + Cal. 7 (P2)	P2022-2113-2 (P2)	P2022-2721-1	P2022-2113-2	M2022-3141-1	IS + Cal. 7
C							IS + Cal. 6 (P2)	Blood NEG (P2)	P2022-2685-1	M2022-3631-3	Neg Ctrl	IS + Cal. 6
D						P2022-2527-1 (P2)	IS + Cal. 5 (P2)	IS + QC_4 (P2)	P2022-2681-1	M2022-3617-2	IS + QC_2	IS + Cal. 5
E						P2022-2681-1 (P2)	IS + Cal. 4 (P2)	IS + QC_3 (P2)	P2022-2673-1	M2022-3600-2	IS + QC_4	IS + Cal. 4
F						P2022-2113-7 (P2)	IS + Cal. 3 (P2)	IS + QC_2 (P2)	P2022-2667-1	M2022-3561-2	IS + QC_3	IS + Cal. 3
G						P2022-2113-6 (P2)	IS + Cal. 2 (P2)	IS + QC_1 (P2)	P2022-2644-1	M2022-3541-2	IS + QC_2	IS + Cal. 2
H						P2022-2113-5 (P2)	IS + Cal. 1 (P2)	P2022-2748-1	P2022-2113-5	M2022-3299-1	IS + QC_1	IS + Cal. 1

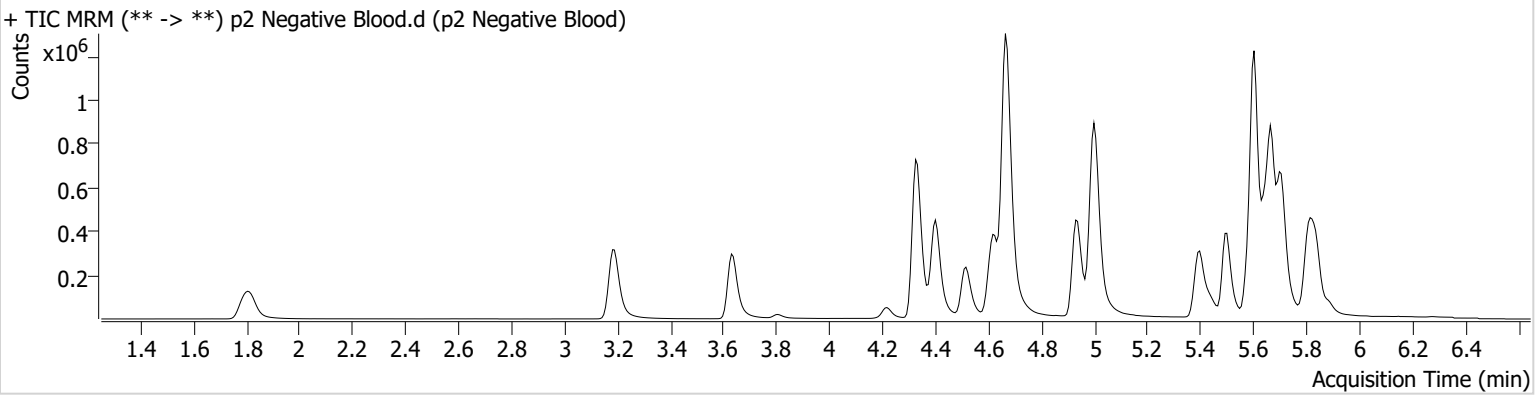
SLE Map

AM #28 Multi-Drug Quant. Results

Batch results	D:\MassHunter\Data\2022\AM 27-28\090922 AM 28 P1 P2 CS\QuantResults\AM 28 P2.batch.bin
Calibration Last Update	9/16/2022 8:48:01 AM

Instrument	Falco (069901)	**Data File**	p2 Negative Blood.d
Type	Sample	**Sample**	p2 Negative Blood
Acq. Method	AM 28 MDQ P2 Updated 081022 CS.m	**Operator**	Celena Shrum
Sample Position	P6-C8	**Comment**	
Injection Volume	5		
Acq. Date-Time	9/10/2022 4:50:19 AM		
Sample Info.			

Sample Chromatogram

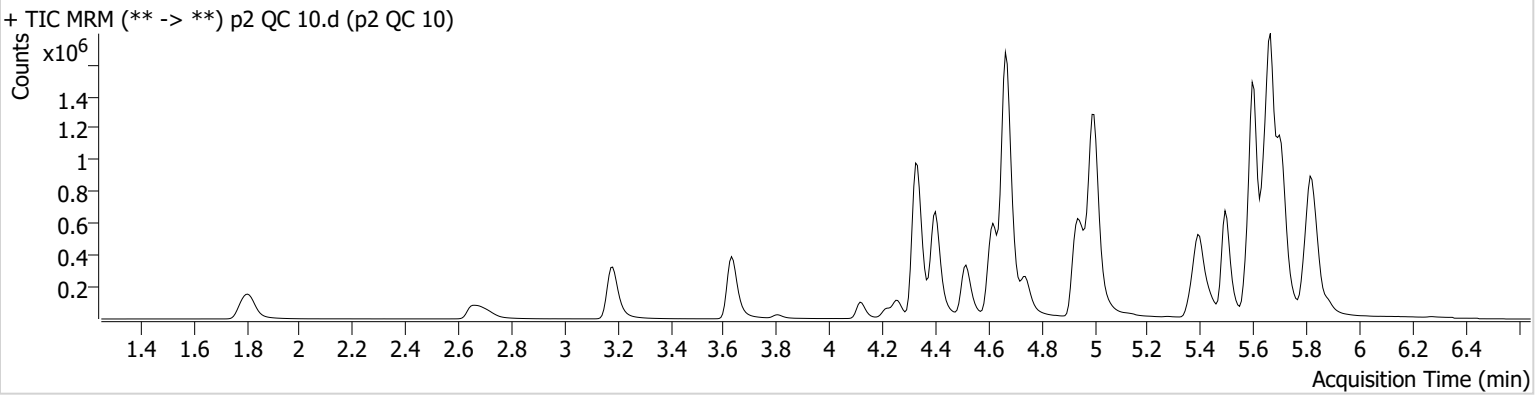


AM #28 Multi-Drug Quant. Results

Batch results D:\MassHunter\Data\2022\AM 27-28\090922 AM 28 P1 P2 CS\QuantResults\AM 28 P2.batch.bin
Calibration Last Update 9/16/2022 8:48:01 AM

Instrument	Falco (069901)	**Data File**	p2 QC 10.d
Type	QC	**Sample**	p2 QC 10
Acq. Method	AM 28 MDQ P2 Updated 081022 CS.m	**Operator**	Celena Shrum
Sample Position	P6-G8	**Comment**	
Injection Volume	5		
Acq. Date-Time	9/10/2022 3:24:27 AM		
Sample Info.			

Sample Chromatogram



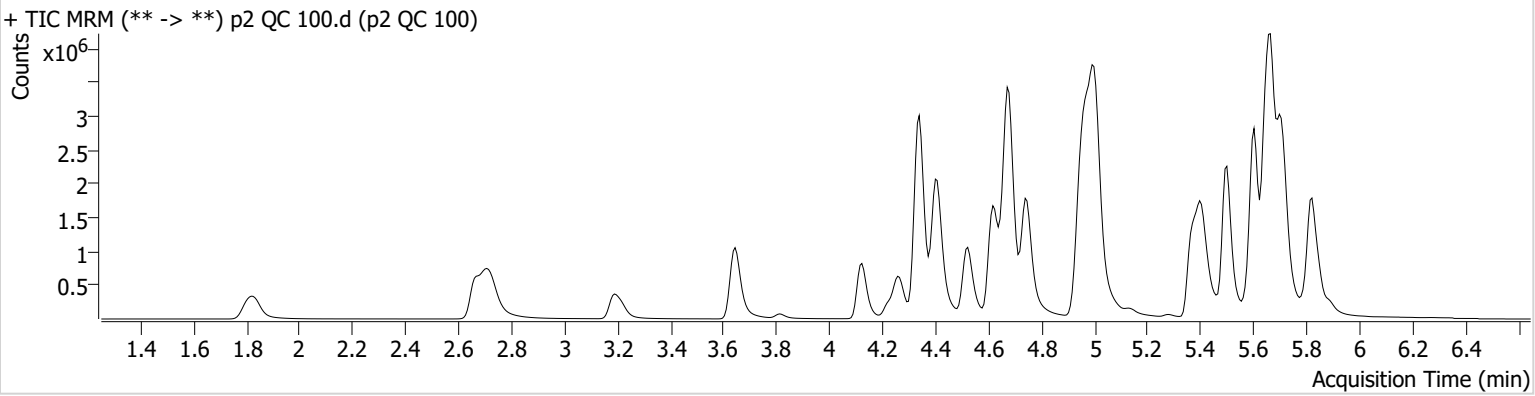
Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
10-OH-Carbazepine	5.001	302764	518.36	90.3	11374.44	1220847	10.0344 ng/ml
alpha-hydroxymidazolam	5.807	70568	304.79	61.1	5244.34	548888	10.6154 ng/ml
Amitriptyline	5.701	100489	398.74	114.5	632.93	426891	10.6483 ng/ml
Carbamazepine	5.607	454054	2015.69	8.3	279.70	2392340	10.7463 ng/ml
Maprotiline	5.667	63137	392.05	204.1	646.62	426891	12.3736 ng/ml
Midazolam	5.842	46261	37055.29	91.3	5511.83	497152	10.8695 ng/ml
Nortriptyline	5.722	103975	2049.00	35.1	569.43	301606	10.3748 ng/ml
Topiramate	4.984	5388	10373.73	48.4	3844.62	39648	10.1959 ng/ml

AM #28 Multi-Drug Quant. Results

Batch results D:\MassHunter\Data\2022\AM 27-28\090922 AM 28 P1 P2 CS\QuantResults\AM 28 P2.batch.bin
Calibration Last Update 9/16/2022 8:48:01 AM

Instrument	Falco (069901)	**Data File**	p2 QC 100.d
Type	QC	**Sample**	p2 QC 100
Acq. Method	AM 28 MDQ P2 Updated 081022 CS.m	**Operator**	Celena Shrum
Sample Position	P6-F8	**Comment**	
Injection Volume	5		
Acq. Date-Time	9/10/2022 7:52:43 AM		
Sample Info.			

Sample Chromatogram



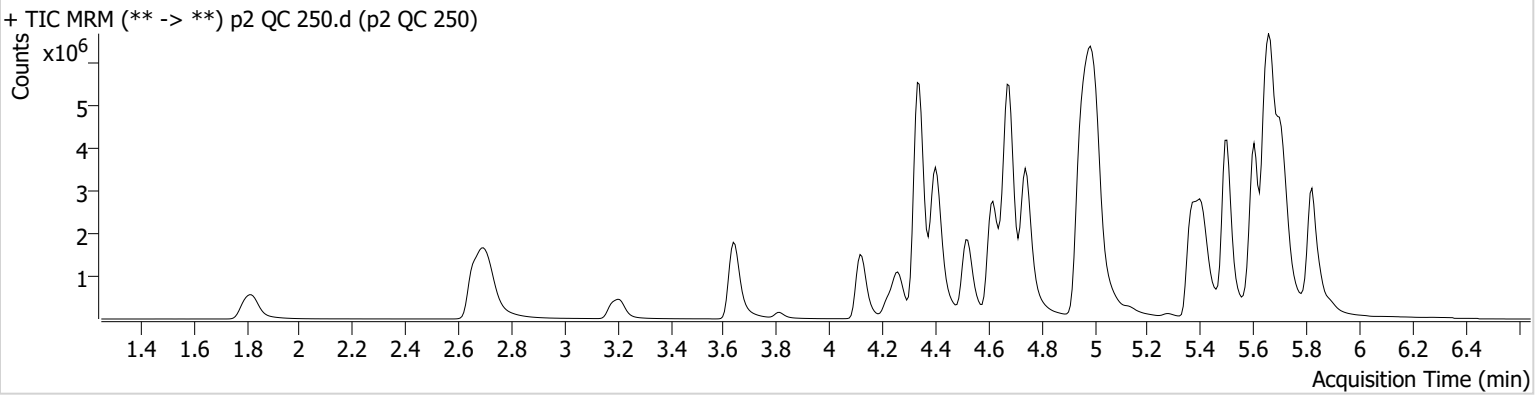
Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
10-OH-Carbazepine	5.008	2318152	1023.09	89.6	10302.46	906791	99.0988 ng/ml
alpha-hydroxymidazolam	5.814	605012	645.77	61.7	3036.83	489924	105.4338 ng/ml
Amitriptyline	5.701	715653	2839.49	110.3	6595.50	305794	107.2784 ng/ml
Carbamazepine	5.607	3631900	5082.38	8.0	1520.44	1841669	94.6975 ng/ml
Maprotiline	5.674	313960	5318.33	265.6	2158.60	305794	91.5158 ng/ml
Midazolam	5.849	367981	8244.38	95.0	26362.23	413771	98.6748 ng/ml
Nortriptyline	5.722	617063	473695.59	36.5	7600.36	179325	99.7570 ng/ml
Topiramate	4.984	31259	40527.65	45.3	9776.47	31455	92.7930 ng/ml

AM #28 Multi-Drug Quant. Results

Batch results D:\MassHunter\Data\2022\AM 27-28\090922 AM 28 P1 P2 CS\QuantResults\AM 28 P2.batch.bin
Calibration Last Update 9/16/2022 8:48:01 AM

Instrument	Falco (069901)	**Data File**	p2 QC 250.d
Type	QC	**Sample**	p2 QC 250
Acq. Method	AM 28 MDQ P2 Updated 081022 CS.m	**Operator**	Celena Shrum
Sample Position	P6-E8	**Comment**	
Injection Volume	5		
Acq. Date-Time	9/10/2022 3:45:53 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
10-OH-Carbazepine	5.001	4153861	1100.19	87.7	7739.75	631157	254.3883 ng/ml
alpha-hydroxymidazolam	5.814	1146875	3653.89	63.3	681.18	409532	239.6075 ng/ml
Amitriptyline	5.701	1424858	3475.81	109.0	8919.76	243788	268.1525 ng/ml
Carbamazepine	5.607	6517055	4105.01	8.4	869.11	1279670	241.6928 ng/ml
~~Maprotiline~~	~~5.674~~	~~475058~~	~~787.29~~	~~335.6~~ **~~High~~**	~~6428.08~~	~~243788~~	~~174.5437 ng/ml~~ *
Midazolam	5.849	717485	819.06	91.4	523.64	312703	253.6163 ng/ml
Nortriptyline	5.722	1147368	3927.90	36.2	4307.16	137201	241.8327 ng/ml
~~Topiramate~~	~~4.984~~	~~45639~~	~~39086.23~~	~~43.6~~	~~26013.52~~	~~17737~~	~~244.8506 ng/ml~~ *

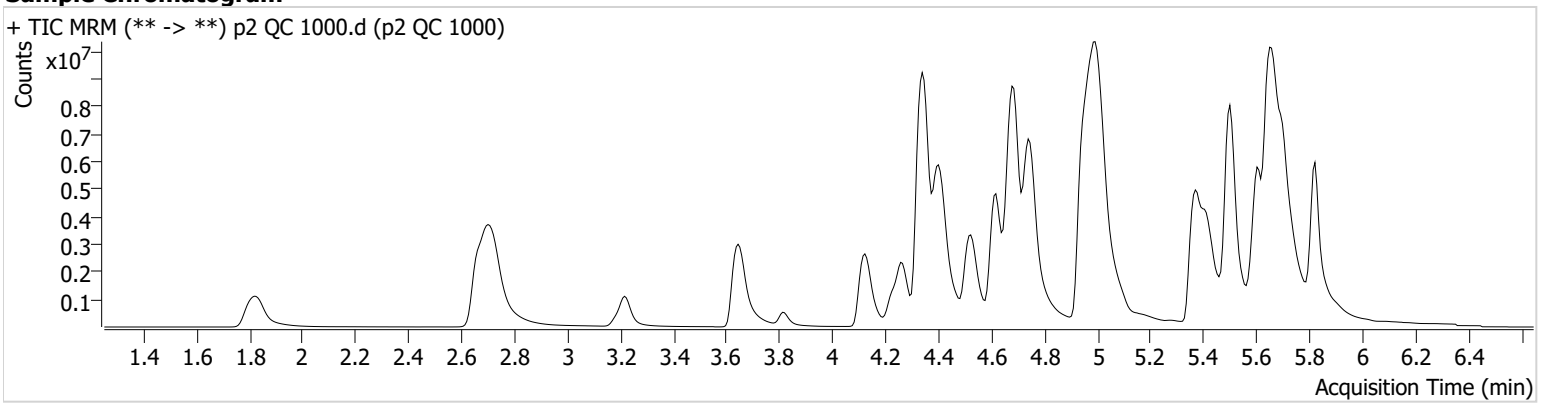
*Outside curve range.

AM #28 Multi-Drug Quant. Results

Batch results D:\MassHunter\Data\2022\AM 27-28\090922 AM 28 P1 P2 CS\QuantResults\AM 28 P2.batch.bin
Calibration Last Update 9/16/2022 8:48:01 AM

Instrument	Falco (069901)	**Data File**	p2 QC 1000.d
Type	QC	**Sample**	p2 QC 1000
Acq. Method	AM 28 MDQ P2 Updated 081022 CS.m	**Operator**	Celena Shrum
Sample Position	P6-D8	**Comment**	
Injection Volume	5		
Acq. Date-Time	9/10/2022 4:07:22 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
10-OH-Carbazepine	5.008	7250650	5821.79	87.9	74181.13	284660	983.2000 ng/ml
~~alpha-hydroxymidazolam~~	~~5.807~~	~~1838863~~	~~249.24~~	~~62.7~~	~~26489.07~~	~~201377~~	~~782.2014 ng/ml~~ *
Amitriptyline	5.701	3171287	11348.92	103.9	45811.46	141776	1026.7026 ng/ml
Carbamazepine	5.614	9341772	81230.77	8.5	888.43	435718	1011.7008 ng/ml
~~Maprotiline~~	~~5.674~~	~~475929~~	~~18040.64~~	~~686.5~~ **~~High~~**	~~2494.35~~	~~141776~~	~~301.3672 ng/ml~~ *
Midazolam	5.849	1451816	3200.30	91.2	19646.12	149663	1070.2766 ng/ml
Nortriptyline	5.729	2402983	3026.71	36.2	363825.39	69131	1003.8579 ng/ml
~~Topiramate~~	~~4.991~~	~~38106~~	~~432.80~~	~~73.0~~ **~~High~~**	~~15.24~~	~~4723~~	~~773.9053 ng/ml~~ *

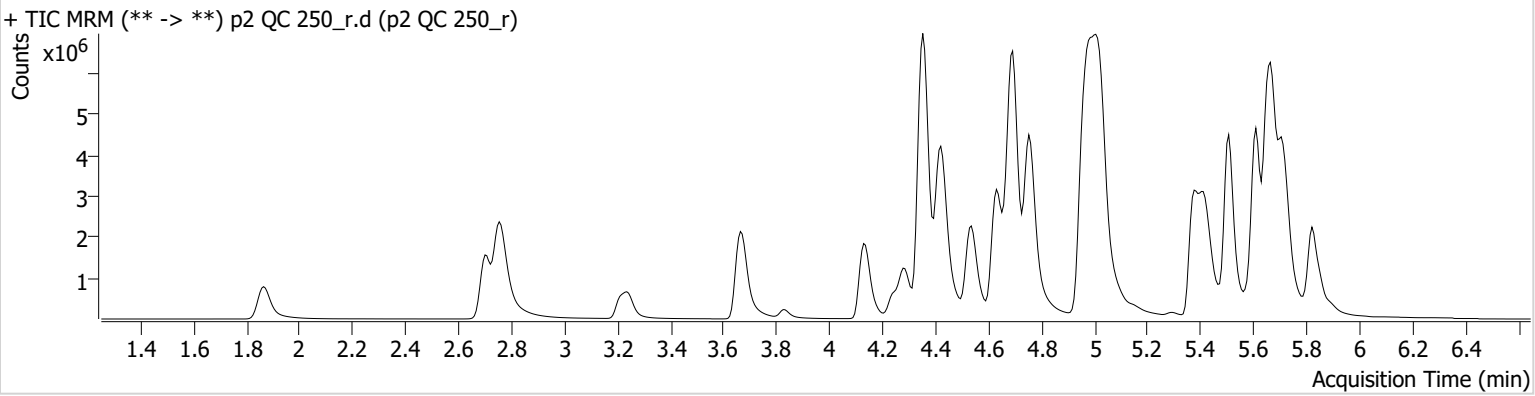
*Outside curve range.

AM #28 Multi-Drug Quant. Results

Batch results D:\MassHunter\Data\2022\AM 27-28\090922 AM 28 P1 P2 CS\QuantResults\AM 28 P2.batch.bin
Calibration Last Update 9/16/2022 8:48:01 AM

Instrument	Falco (069901)	**Data File**	p2 QC 250_r.d
Type	QC	**Sample**	p2 QC 250_r
Acq. Method	AM 28 MDQ P2 Updated 081022 CS.m	**Operator**	Celena Shrum
Sample Position	P6-E8	**Comment**	
Injection Volume	5		
Acq. Date-Time	9/12/2022 12:08:36 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
10-OH-Carbazepine	5.022	5374220	1795.01	87.3	41298.36	814554	255.0210 ng/ml
alpha-hydroxymidazolam	5.814	1243578	3102.08	62.3	2527.58	430276	247.2980 ng/ml
Amitriptyline	5.708	1161724	1647.47	104.2	6796.70	195844	272.1564 ng/ml
Carbamazepine	5.614	8128303	11308.71	8.5	4139.56	1524277	252.9882 ng/ml
~~Maprotiline~~	~~5.680~~	~~312787~~	~~1192.77~~	~~395.3~~ **~~High~~**	~~2393.54~~	~~195844~~	~~142.8858 ng/ml~~ *
Midazolam	5.849	807745	1695.18	93.3	548.75	371847	240.1404 ng/ml
Nortriptyline	5.729	732324	253995.37	36.4	7592.05	86434	245.0071 ng/ml
~~Topiramate~~	~~4.998~~	~~59551~~	~~613.17~~	~~44.4~~	~~25896.91~~	~~21123~~	~~268.5480 ng/ml~~ *

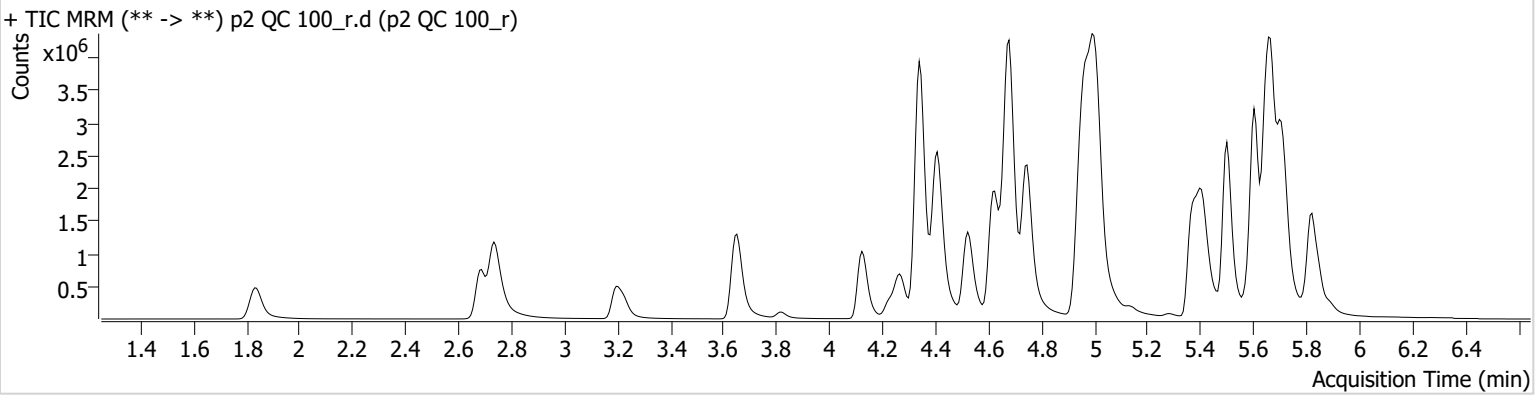
*Outside curve range.

AM #28 Multi-Drug Quant. Results

Batch results D:\MassHunter\Data\2022\AM 27-28\090922 AM 28 P1 P2 CS\QuantResults\AM 28 P2.batch.bin
Calibration Last Update 9/16/2022 8:48:01 AM

Instrument	Falco (069901)	**Data File**	p2 QC 100_r.d
Type	QC	**Sample**	p2 QC 100_r
Acq. Method	AM 28 MDQ P2 Updated 081022 CS.m	**Operator**	Celena Shrum
Sample Position	P6-F8	**Comment**	
Injection Volume	5		
Acq. Date-Time	9/12/2022 1:23:59 PM		
Sample Info.			

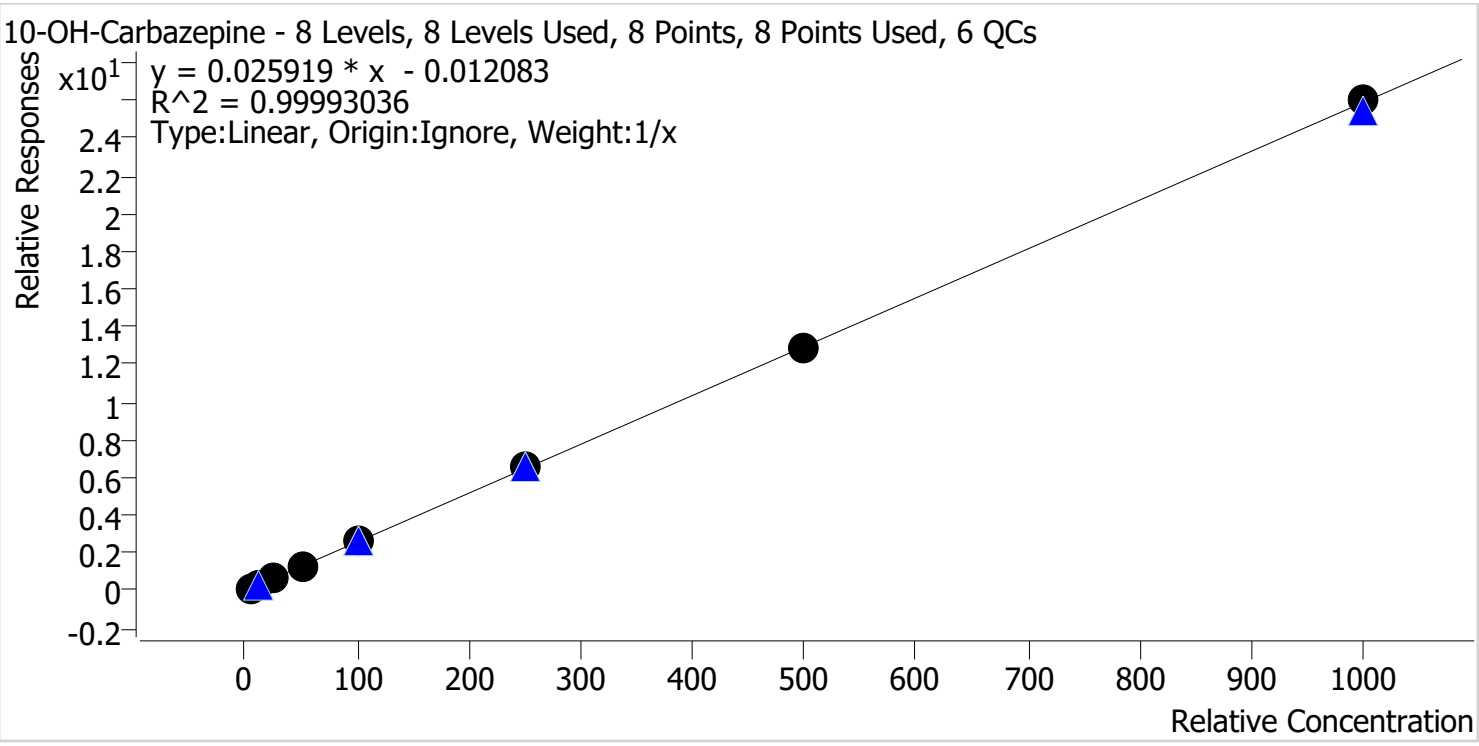
Sample Chromatogram



Name	RT	Resp.	S/N	Ratio		S/N	ISTD Resp.	Final Conc.
10-OH-Carbazepine	5.008	2775328	1185.09	85.9		6348.53	1043055	103.1242 ng/ml
alpha-hydroxymidazolam	5.814	687097	331.00	62.2		7422.52	564051	103.9971 ng/ml
Amitriptyline	5.701	693293	1472.19	110.9		2404.33	302096	105.1957 ng/ml
Carbamazepine	5.607	4274540	4520.48	8.4		687.68	2166998	94.7207 ng/ml
Maprotiline	5.674	253447	1162.97	315.2	High	10932.11	302096	74.6086 ng/ml
Midazolam	5.849	437243	3862.67	93.1		3091.58	497155	97.5891 ng/ml
Nortriptyline	5.722	516445	60967.03	36.3		6562.22	151107	99.0846 ng/ml
Topiramate	4.991	31284	43018.64	42.8		31760.18	28440	103.0189 ng/ml

AM #28 Multi-Drug Quant. Calibration Curve Report

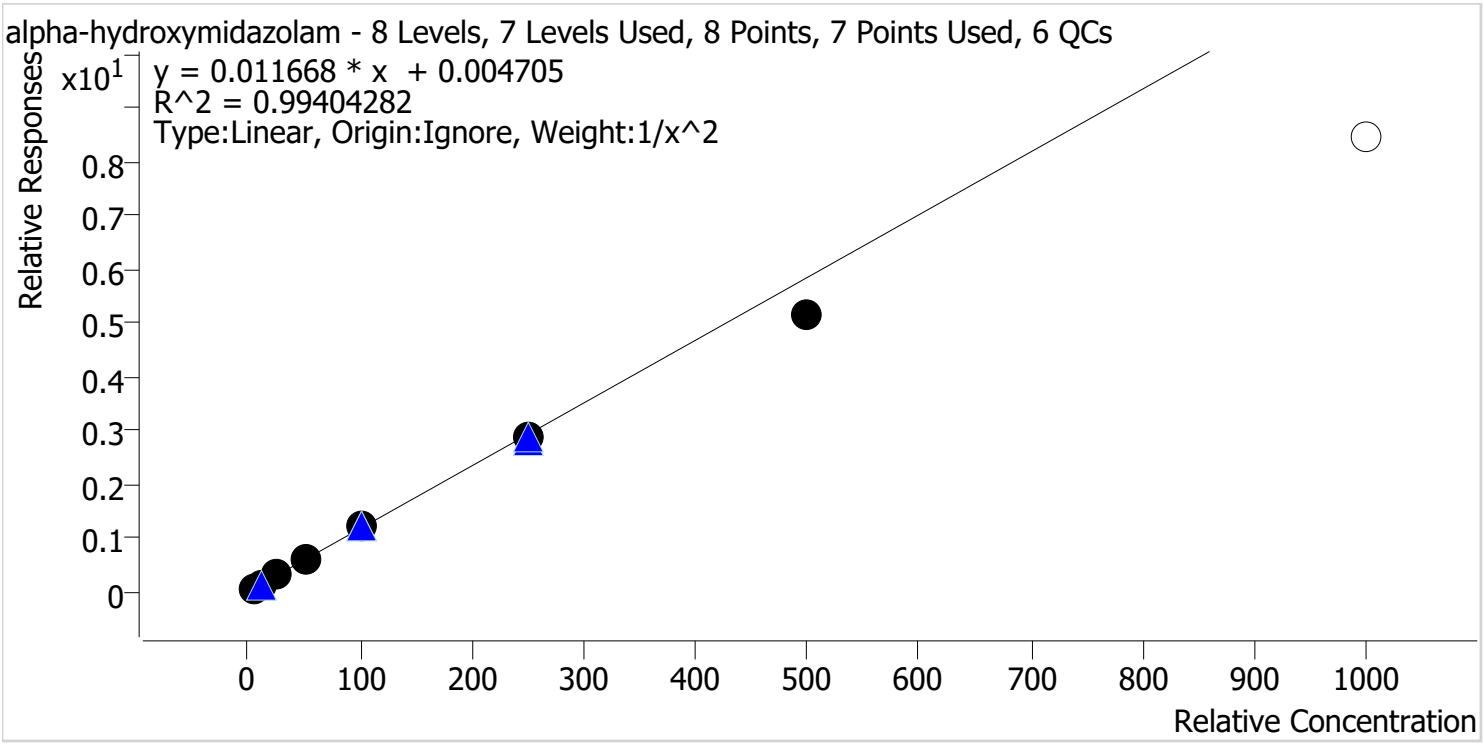
Batch results	D:\MassHunter\Data\2022\AM 27-28\090922 AM 28 P1 P2 CS\QuantResults\AM 28 P2.batch.bin
Last Cal. Update	9/16/2022 8:48 AM
Analyst Name	ISP\datastor
Analyte	10-OH-Carbazepine
Internal Standard	10-OH-Carbazepine-13-D6



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
p2 Cal 1-5ng	1	✔	5.0	5.0	100.0
p2 Cal 2-10ng	2	✔	10.0	10.4	104.1
p2 Cal 3 -25ng	3	✔	25.0	24.7	98.9
p2 Cal 4-50ng	4	✔	50.0	48.4	96.8
p2 Cal 5-100ng	5	✔	100.0	100.3	100.3
p2 Cal 6-250ng	6	✔	250.0	250.6	100.2
p2 Cal 7-500ng	7	✔	500.0	496.1	99.2
p2Cal 8-1000ng	8	✔	1000.0	1004.4	100.4

AM #28 Multi-Drug Quant. Calibration Curve Report

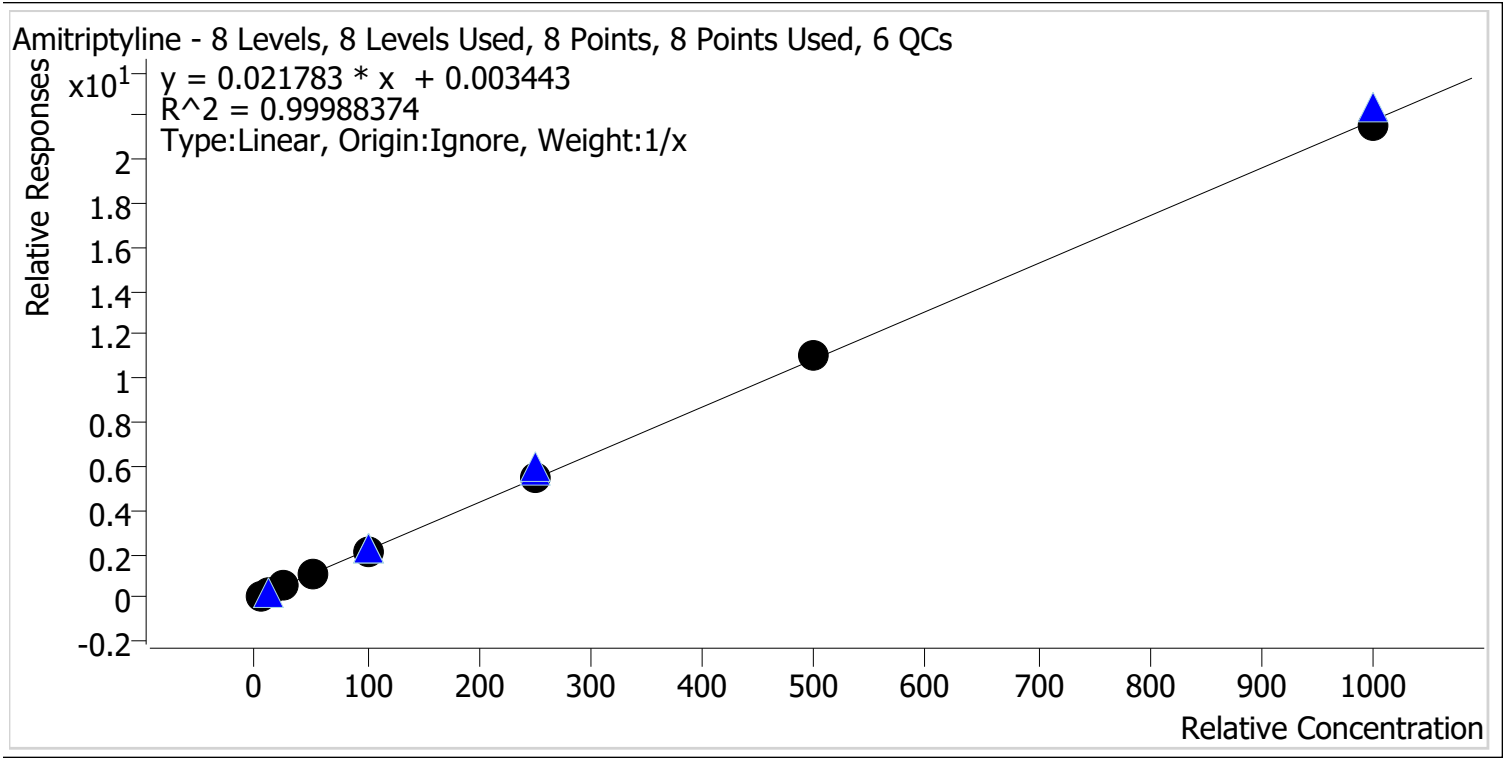
Batch results	D:\MassHunter\Data\2022\AM 27-28\090922 AM 28 P1 P2 CS\QuantResults\AM 28 P2.batch.bin
Last Cal. Update	9/16/2022 8:48 AM
Analyst Name	ISP\datastor
Analyte	alpha-hydroxymidazolam
Internal Standard	alpha-hydroxymidazolam-D4



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
p2 Cal 1-5ng	1	✔	5.0	4.8	95.3
p2 Cal 2-10ng	2	✔	10.0	10.7	107.2
p2 Cal 3 -25ng	3	✔	25.0	26.0	104.1
p2 Cal 4-50ng	4	✔	50.0	51.2	102.5
p2 Cal 5-100ng	5	✔	100.0	103.6	103.6
p2 Cal 6-250ng	6	✔	250.0	248.6	99.5
p2 Cal 7-500ng	7	✔	500.0	439.5	87.9
p2Cal 8-1000ng	8	✗	1000.0	725.9	72.6

AM #28 Multi-Drug Quant. Calibration Curve Report

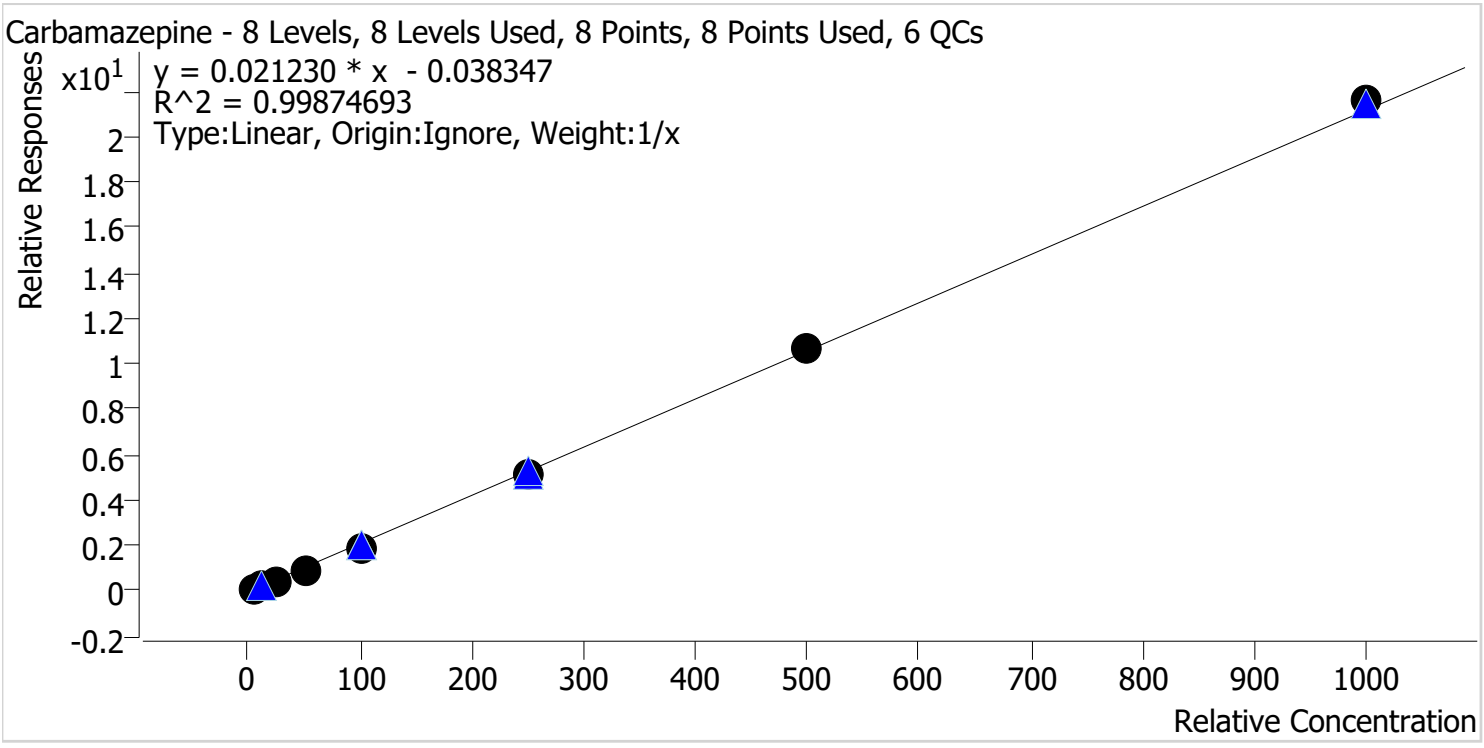
Batch results	D:\MassHunter\Data\2022\AM 27-28\090922 AM 28 P1 P2 CS\QuantResults\AM 28 P2.batch.bin
Last Cal. Update	9/16/2022 8:48 AM
Analyst Name	ISP\datastor
Analyte	Amitriptyline
Internal Standard	Amitriptyline-D3



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
p2 Cal 1-5ng	1	✔	5.0	4.8	95.6
p2 Cal 2-10ng	2	✔	10.0	10.5	105.4
p2 Cal 3 -25ng	3	✔	25.0	25.1	100.2
p2 Cal 4-50ng	4	✔	50.0	48.7	97.5
p2 Cal 5-100ng	5	✔	100.0	100.1	100.1
p2 Cal 6-250ng	6	✔	250.0	251.4	100.6
p2 Cal 7-500ng	7	✔	500.0	506.3	101.3
p2Cal 8-1000ng	8	✔	1000.0	993.0	99.3

AM #28 Multi-Drug Quant. Calibration Curve Report

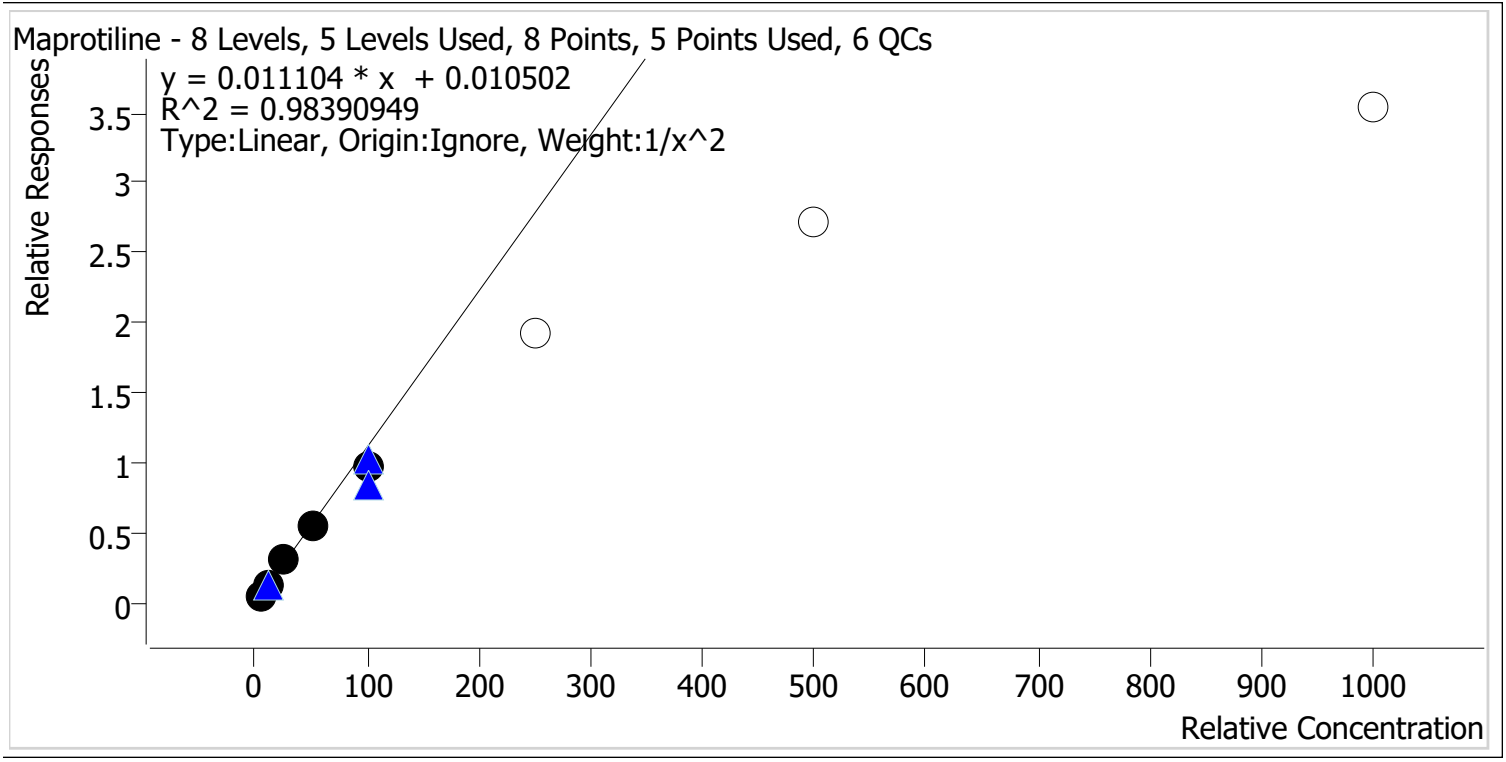
Batch results	D:\MassHunter\Data\2022\AM 27-28\090922 AM 28 P1 P2 CS\QuantResults\AM 28 P2.batch.bin
Last Cal. Update	9/16/2022 8:48 AM
Analyst Name	ISP\datastor
Analyte	Carbamazepine
Internal Standard	Carbamazepine-13C6



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
p2 Cal 1-5ng	1	✔	5.0	5.9	118.4
p2 Cal 2-10ng	2	✔	10.0	10.8	108.0
p2 Cal 3 -25ng	3	✔	25.0	23.3	93.4
p2 Cal 4-50ng	4	✔	50.0	44.2	88.4
p2 Cal 5-100ng	5	✔	100.0	93.1	93.1
p2 Cal 6-250ng	6	✔	250.0	241.0	96.4
p2 Cal 7-500ng	7	✔	500.0	501.9	100.4
p2Cal 8-1000ng	8	✔	1000.0	1019.8	102.0

AM #28 Multi-Drug Quant. Calibration Curve Report

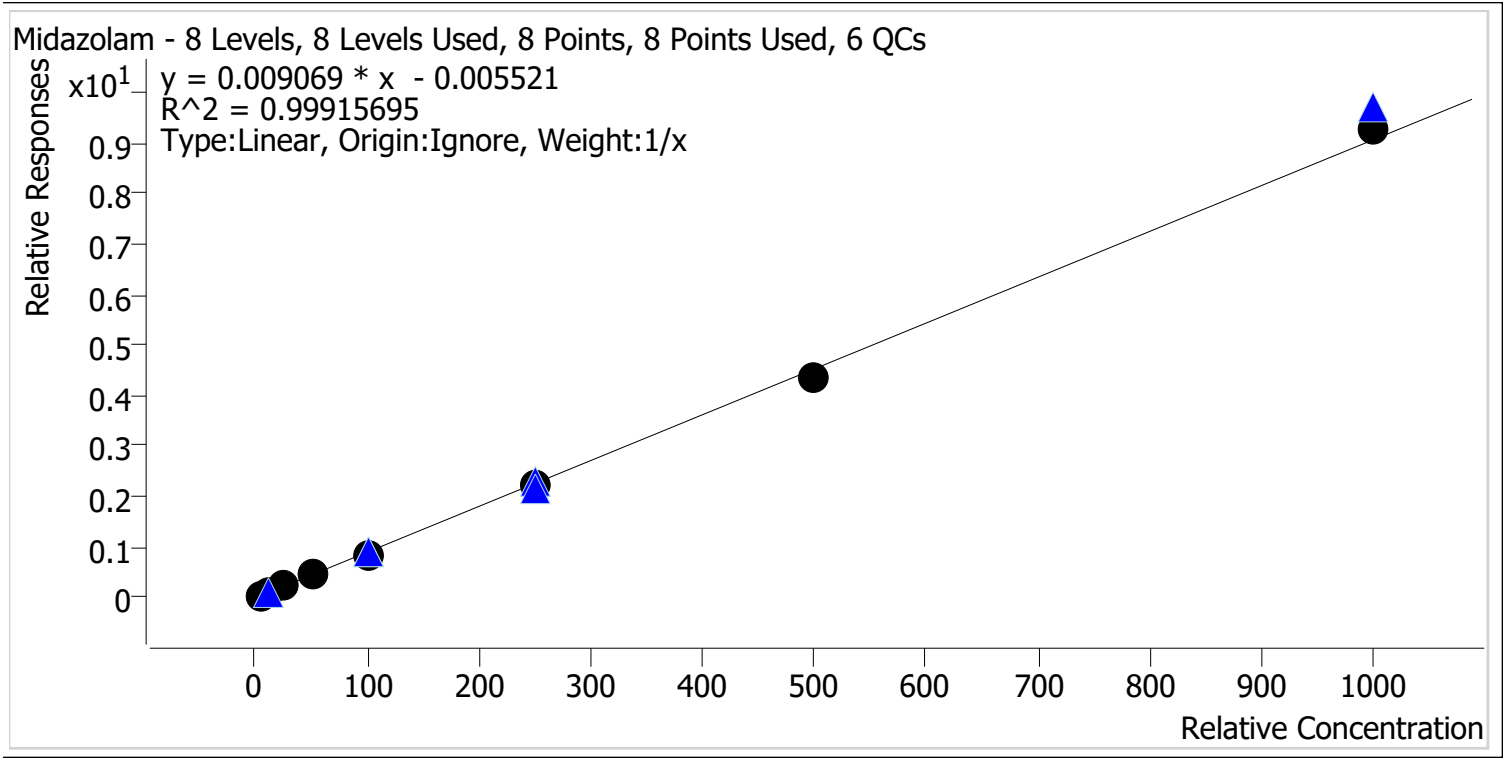
Batch results	D:\MassHunter\Data\2022\AM 27-28\090922 AM 28 P1 P2 CS\QuantResults\AM 28 P2.batch.bin
Last Cal. Update	9/16/2022 8:48 AM
Analyst Name	ISP\datastor
Analyte	Maprotiline
Internal Standard	Amitriptyline-D3



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
p2 Cal 1-5ng	1	✔	5.0	4.7	93.4
p2 Cal 2-10ng	2	✔	10.0	11.1	111.2
p2 Cal 3 -25ng	3	✔	25.0	27.1	108.5
p2 Cal 4-50ng	4	✔	50.0	49.6	99.1
p2 Cal 5-100ng	5	✔	100.0	87.8	87.8
p2 Cal 6-250ng	6	✗	250.0	173.8	69.5
p2 Cal 7-500ng	7	✗	500.0	243.2	48.6
p2Cal 8-1000ng	8	✗	1000.0	317.5	31.7

AM #28 Multi-Drug Quant. Calibration Curve Report

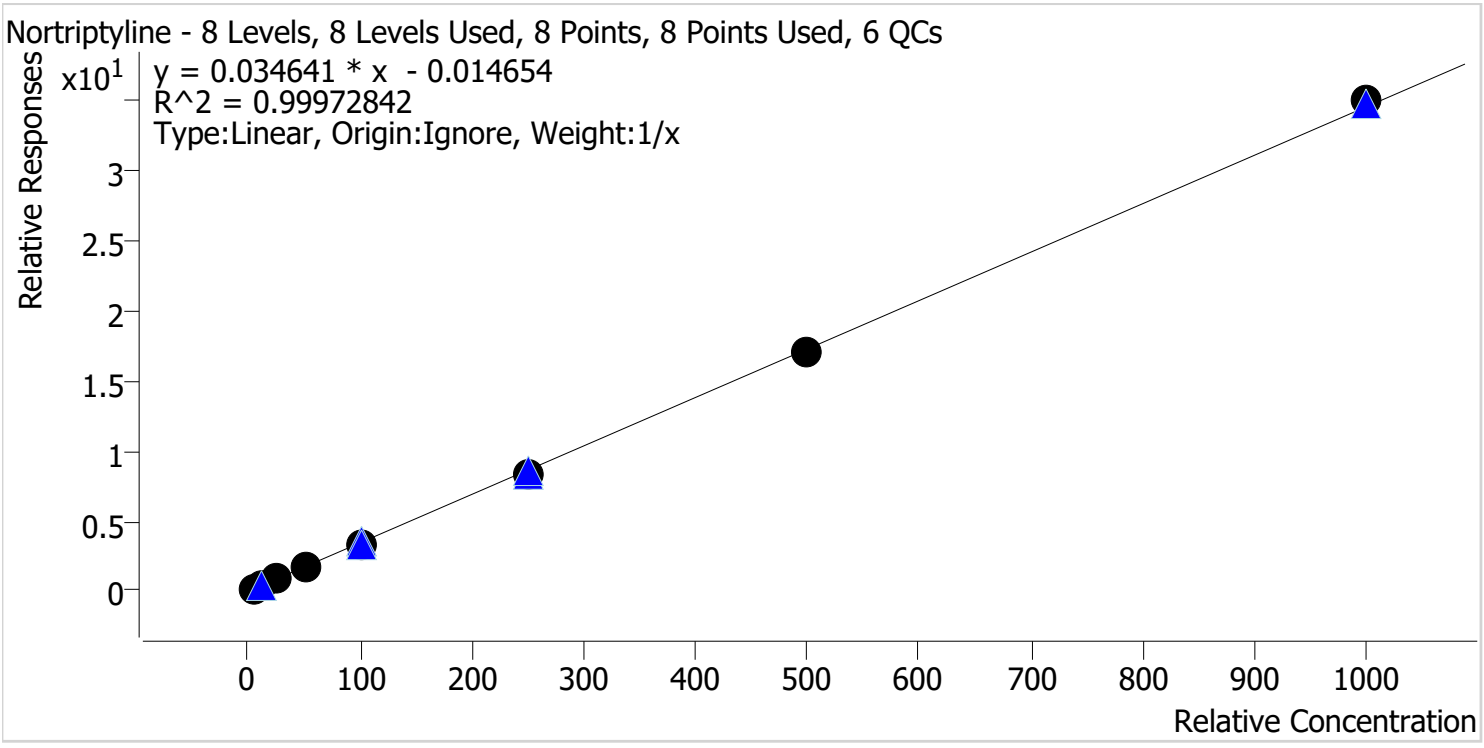
Batch results D:\MassHunter\Data\2022\AM 27-28\090922 AM 28 P1 P2 CS\QuantResults\AM 28 P2.batch.bin
Last Cal. Update 9/16/2022 8:48 AM
Analyst Name ISP\datastor
Analyte Midazolam **Internal Standard** Midazolam-D4



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
p2 Cal 1-5ng	1	✔	5.0	5.0	100.5
p2 Cal 2-10ng	2	✔	10.0	10.7	107.1
p2 Cal 3 -25ng	3	✔	25.0	25.3	101.0
p2 Cal 4-50ng	4	✔	50.0	48.7	97.4
p2 Cal 5-100ng	5	✔	100.0	96.2	96.2
p2 Cal 6-250ng	6	✔	250.0	247.2	98.9
p2 Cal 7-500ng	7	✔	500.0	482.3	96.5
p2Cal 8-1000ng	8	✔	1000.0	1024.6	102.5

AM #28 Multi-Drug Quant. Calibration Curve Report

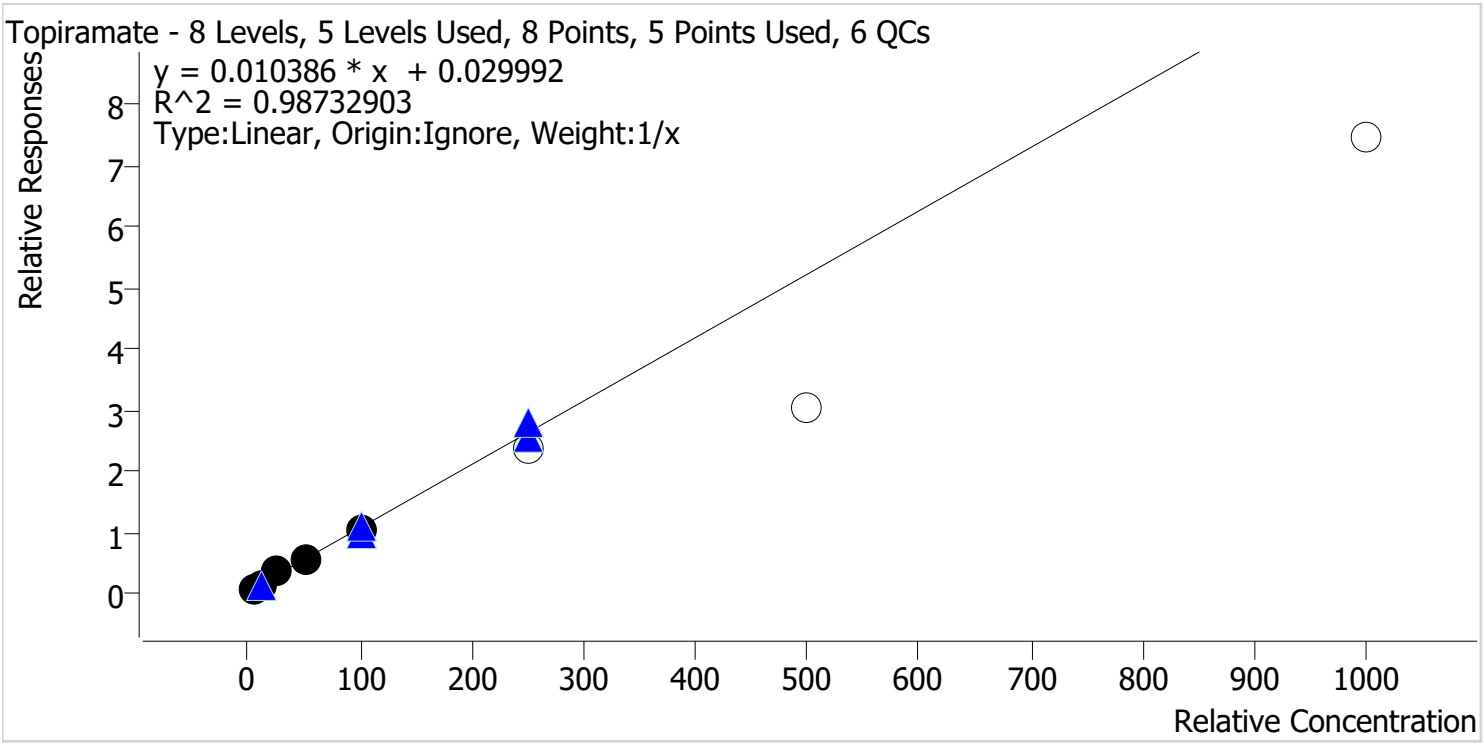
Batch results D:\MassHunter\Data\2022\AM 27-28\090922 AM 28 P1 P2 CS\QuantResults\AM 28 P2.batch.bin
Last Cal. Update 9/16/2022 8:48 AM
Analyst Name ISP\datastor
Analyte Nortriptyline **Internal Standard** Nortriptyline-d3



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
p2 Cal 1-5ng	1	✔	5.0	5.1	102.6
p2 Cal 2-10ng	2	✔	10.0	10.4	103.9
p2 Cal 3 -25ng	3	✔	25.0	25.1	100.4
p2 Cal 4-50ng	4	✔	50.0	48.4	96.8
p2 Cal 5-100ng	5	✔	100.0	98.5	98.5
p2 Cal 6-250ng	6	✔	250.0	243.0	97.2
p2 Cal 7-500ng	7	✔	500.0	496.6	99.3
p2Cal 8-1000ng	8	✔	1000.0	1012.9	101.3

AM #28 Multi-Drug Quant. Calibration Curve Report

Batch results	D:\MassHunter\Data\2022\AM 27-28\090922 AM 28 P1 P2 CS\QuantResults\AM 28 P2.batch.bin
Last Cal. Update	9/16/2022 8:48 AM
Analyst Name	ISP\datastor
Analyte	Topiramate
Internal Standard	Topiramate-d12



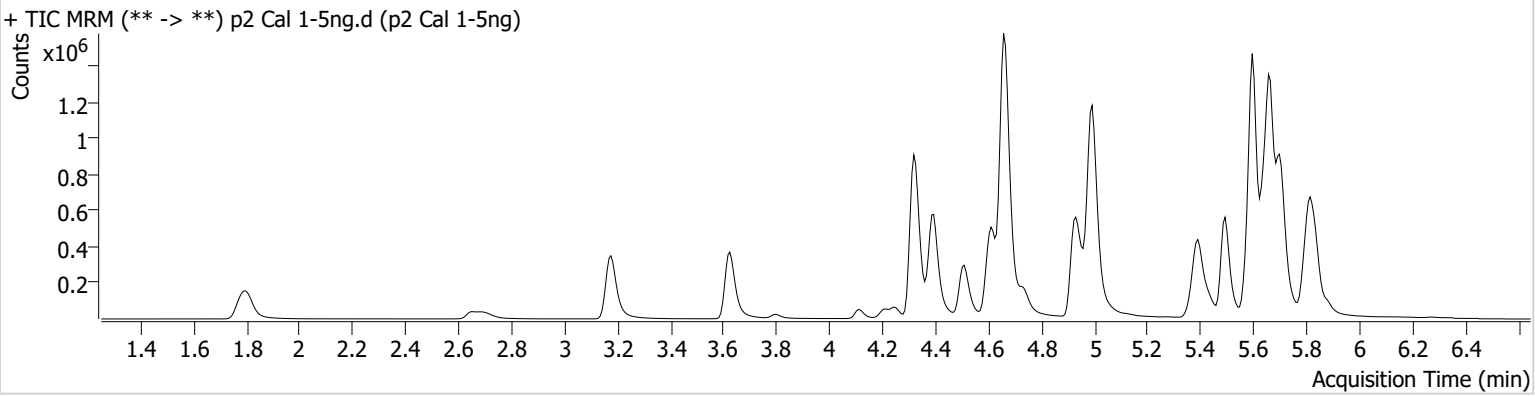
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
p2 Cal 1-5ng	1	✔	5.0	3.8	75.9
p2 Cal 2-10ng	2	✔	10.0	10.9	108.6
p2 Cal 3 -25ng	3	✔	25.0	29.4	117.6
p2 Cal 4-50ng	4	✔	50.0	51.9	103.8
p2 Cal 5-100ng	5	✔	100.0	94.0	94.0
p2 Cal 6-250ng	6	✗	250.0	225.3	90.1
p2 Cal 7-500ng	7	✗	500.0	287.5	57.5
p2Cal 8-1000ng	8	✗	1000.0	716.3	71.6

AM #28 Multi-Drug Quant. Results

Batch results D:\MassHunter\Data\2022\AM 27-28\090922 AM 28 P1 P2 CS\QuantResults\AM 28 P2.batch.bin
Calibration Last Update 9/16/2022 8:48:01 AM

Instrument	Falco (069901)	**Data File**	p2 Cal 1-5ng.d
Type	Cal	**Sample**	p2 Cal 1-5ng
Acq. Method	AM 28 MDQ P2 Updated 081022 CS.m	**Operator**	Celena Shrum
Sample Position	P6-H7	**Comment**	
Injection Volume	5		
Acq. Date-Time	9/10/2022 1:26:30 AM		
Sample Info.			

Sample Chromatogram



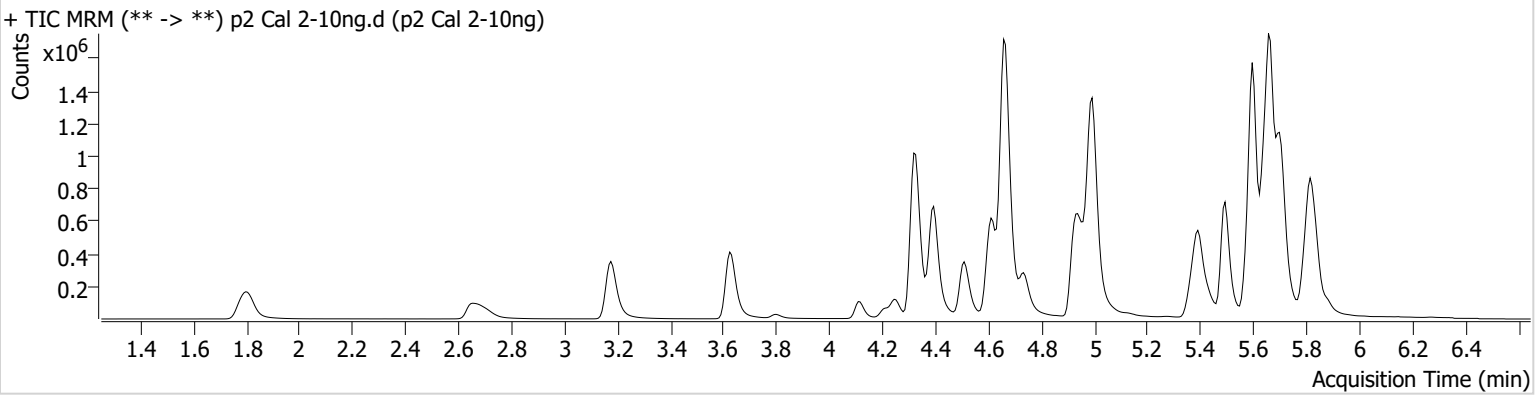
Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
10-OH-Carbazepine	4.995	154233	263.06	90.6	2967.66	1312809	4.9989 ng/ml
alpha-hydroxymidazolam	5.807	35062	128.91	60.4	6976.46	581563	4.7638 ng/ml
Amitriptyline	5.694	39303	467.77	115.9	550.74	365214	4.7822 ng/ml
Carbamazepine	5.601	227809	1247.91	8.4	117.04	2608413	5.9201 ng/ml
Maprotiline	5.667	22779	352.57	220.6	864.54	365214	4.6712 ng/ml
Midazolam	5.842	20676	2135.03	97.1	11105.14	516358	5.0243 ng/ml
Nortriptyline	5.716	40155	32484.19	35.1	462.88	246206	5.1312 ng/ml
Topiramate	4.977	2867	2321.10	43.3	197.03	41300	3.7955 ng/ml

AM #28 Multi-Drug Quant. Results

Batch results D:\MassHunter\Data\2022\AM 27-28\090922 AM 28 P1 P2 CS\QuantResults\AM 28 P2.batch.bin
Calibration Last Update 9/16/2022 8:48:01 AM

Instrument	Falco (069901)	**Data File**	p2 Cal 2-10ng.d
Type	Cal	**Sample**	p2 Cal 2-10ng
Acq. Method	AM 28 MDQ P2 Updated 081022 CS.m	**Operator**	Celena Shrum
Sample Position	P6-G7	**Comment**	
Injection Volume	5		
Acq. Date-Time	9/10/2022 1:37:14 AM		
Sample Info.			

Sample Chromatogram



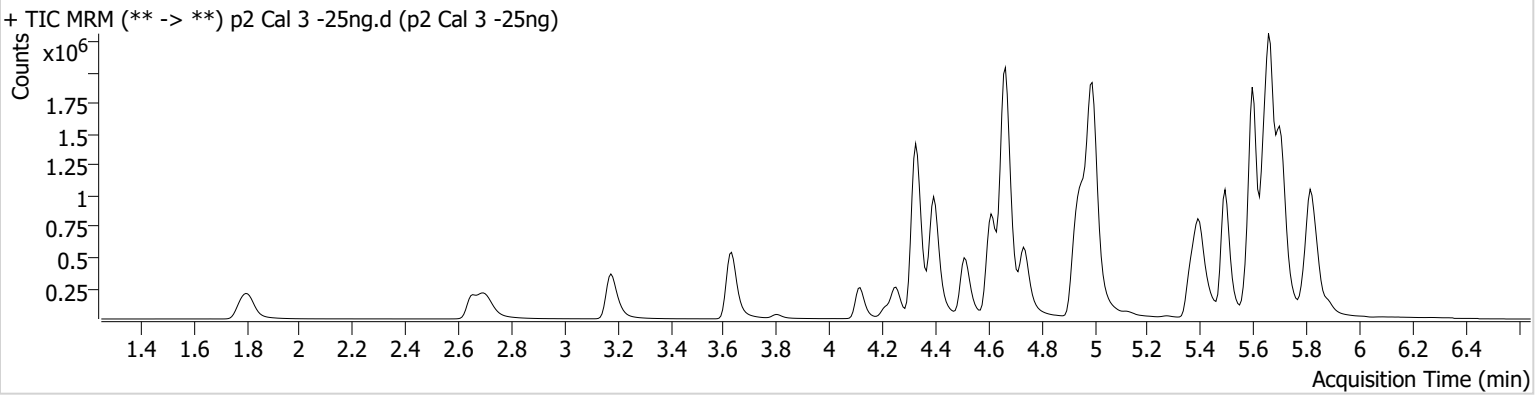
Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
10-OH-Carbazepine	4.995	324672	228.41	87.8	1984.46	1260119	10.4070 ng/ml
alpha-hydroxymidazolam	5.807	72761	583.58	62.9	23023.21	560564	10.7211 ng/ml
Amitriptyline	5.694	99663	1511.90	112.0	2537.67	427806	10.5366 ng/ml
Carbamazepine	5.601	478778	3782.55	8.3	267.86	2506751	10.8028 ng/ml
Maprotiline	5.667	57300	365.05	214.2	575.85	427806	11.1163 ng/ml
Midazolam	5.842	46738	1739.38	93.8	40242.38	510152	10.7112 ng/ml
Nortriptyline	5.716	98953	40296.54	37.4	50131.39	286665	10.3877 ng/ml
Topiramate	4.984	6095	13006.63	38.3	6.69	42679	10.8615 ng/ml

AM #28 Multi-Drug Quant. Results

Batch results D:\MassHunter\Data\2022\AM 27-28\090922 AM 28 P1 P2 CS\QuantResults\AM 28 P2.batch.bin
Calibration Last Update 9/16/2022 8:48:01 AM

Instrument	Falco (069901)	**Data File**	p2 Cal 3 -25ng.d
Type	Cal	**Sample**	p2 Cal 3 -25ng
Acq. Method	AM 28 MDQ P2 Updated 081022 CS.m	**Operator**	Celena Shrum
Sample Position	P6-F7	**Comment**	
Injection Volume	5		
Acq. Date-Time	9/10/2022 1:47:57 AM		
Sample Info.			

Sample Chromatogram



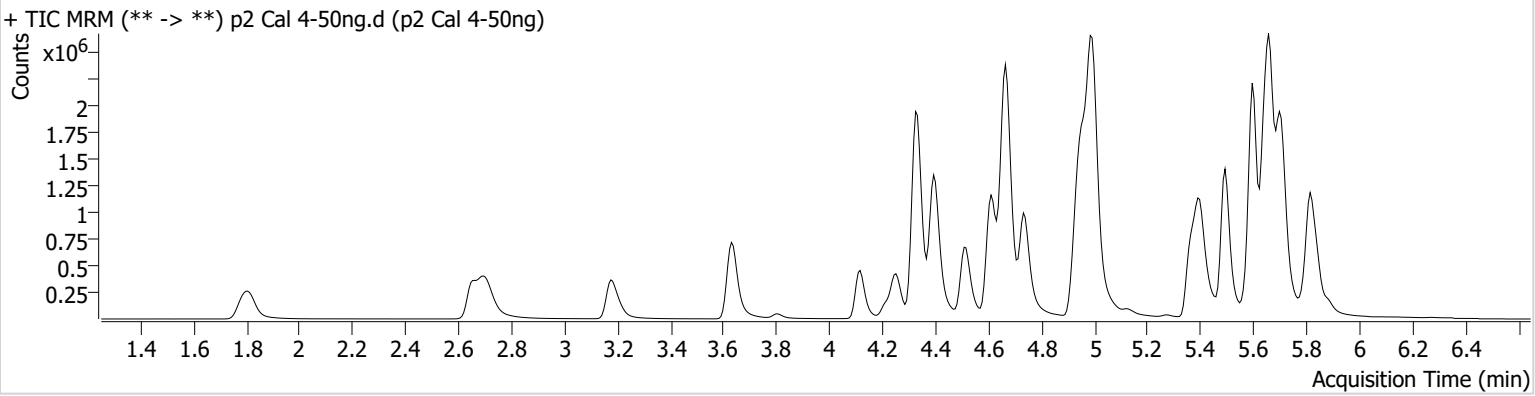
Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
10-OH-Carbazepine	4.995	766091	2339.15	90.4	2037.47	1218543	24.7225 ng/ml
alpha-hydroxymidazolam	5.807	174110	1238.54	62.7	7406.91	564513	26.0301 ng/ml
Amitriptyline	5.694	220890	1568.79	112.7	2309.38	402143	25.0578 ng/ml
Carbamazepine	5.601	1137001	5939.83	8.3	433.66	2487357	23.3378 ng/ml
Maprotiline	5.667	125298	911.65	222.0	4791.37	402143	27.1138 ng/ml
Midazolam	5.842	112440	1702.30	93.0	93469.44	503120	25.2522 ng/ml
Nortriptyline	5.716	226259	91399.84	35.5	1599.68	264599	25.1077 ng/ml
Topiramate	4.977	12880	16061.09	43.9	3792.84	38397	29.4082 ng/ml

AM #28 Multi-Drug Quant. Results

Batch results D:\MassHunter\Data\2022\AM 27-28\090922 AM 28 P1 P2 CS\QuantResults\AM 28 P2.batch.bin
Calibration Last Update 9/16/2022 8:48:01 AM

Instrument	Falco (069901)	**Data File**	p2 Cal 4-50ng.d
Type	Cal	**Sample**	p2 Cal 4-50ng
Acq. Method	AM 28 MDQ P2 Updated 081022 CS.m	**Operator**	Celena Shrum
Sample Position	P6-E7	**Comment**	
Injection Volume	5		
Acq. Date-Time	9/10/2022 1:58:41 AM		
Sample Info.			

Sample Chromatogram



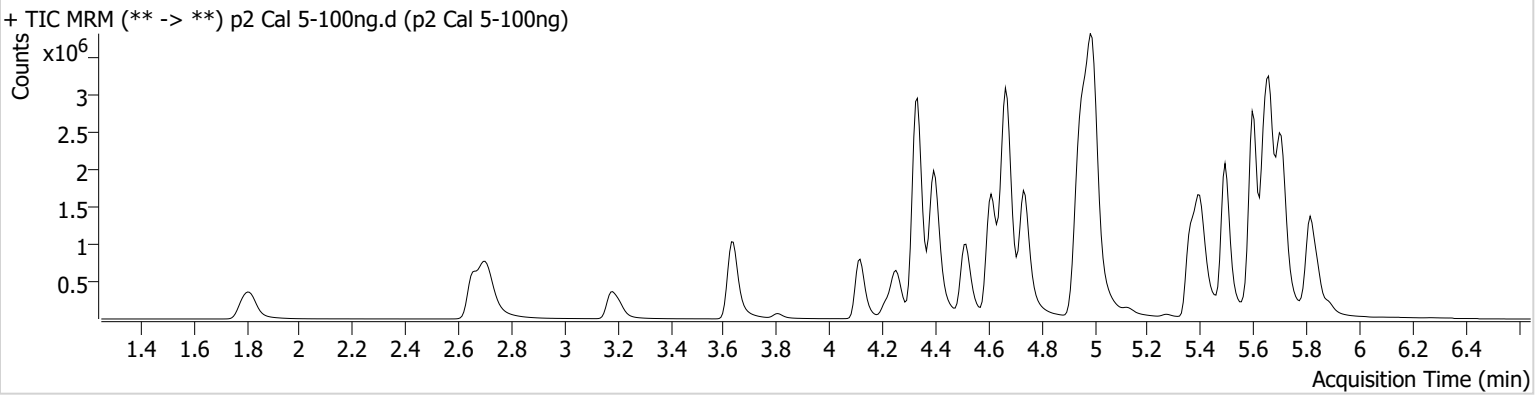
Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
10-OH-Carbazepine	4.995	1357571	925.25	89.5	7484.30	1092456	48.4113 ng/ml
alpha-hydroxymidazolam	5.807	346339	1331.04	62.5	112140.19	574844	51.2330 ng/ml
Amitriptyline	5.694	333364	2327.51	113.8	2343.42	312931	48.7463 ng/ml
Carbamazepine	5.601	2064318	5634.10	8.4	1258.44	2293992	44.1937 ng/ml
Maprotiline	5.667	175493	909.84	235.4	2222.04	312931	49.5584 ng/ml
Midazolam	5.842	200006	186775.75	92.8	58613.40	458562	48.7036 ng/ml
Nortriptyline	5.716	314579	3284.42	36.0	1510.53	189330	48.3875 ng/ml
Topiramate	4.977	20301	22274.78	40.8	4357.16	35670	51.9077 ng/ml

AM #28 Multi-Drug Quant. Results

Batch results D:\MassHunter\Data\2022\AM 27-28\090922 AM 28 P1 P2 CS\QuantResults\AM 28 P2.batch.bin
Calibration Last Update 9/16/2022 8:48:01 AM

Instrument	Falco (069901)	**Data File**	p2 Cal 5-100ng.d
Type	Cal	**Sample**	p2 Cal 5-100ng
Acq. Method	AM 28 MDQ P2 Updated 081022 CS.m	**Operator**	Celena Shrum
Sample Position	P6-D7	**Comment**	
Injection Volume	5		
Acq. Date-Time	9/10/2022 2:09:24 AM		
Sample Info.			

Sample Chromatogram



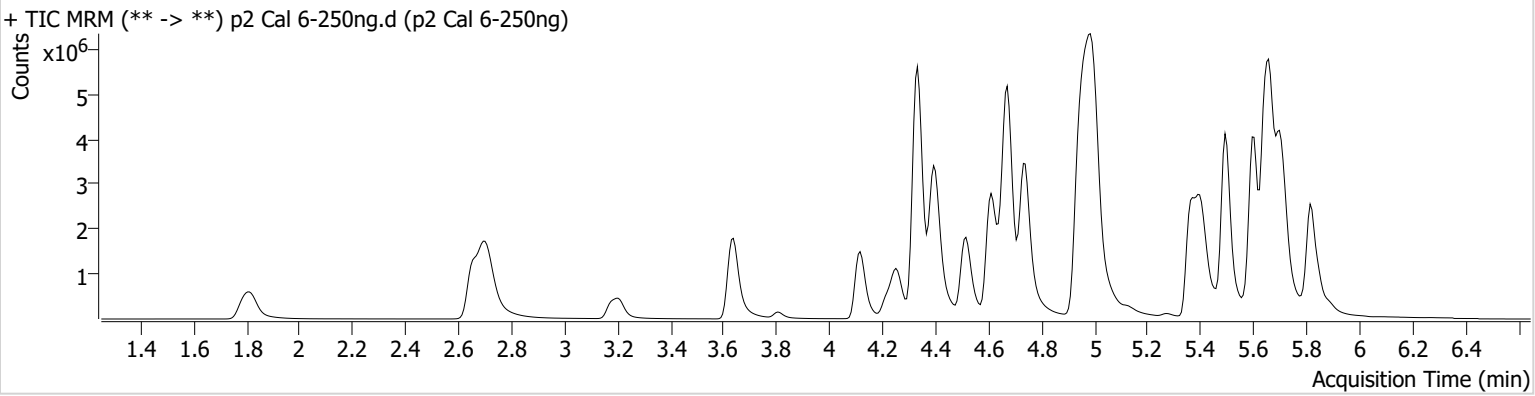
Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
10-OH-Carbazepine	4.995	2350466	382.08	88.8	6510.17	908052	100.3349 ng/ml
alpha-hydroxymidazolam	5.807	637949	1392.68	63.8	2873.99	525847	103.5718 ng/ml
Amitriptyline	5.694	481124	597.95	112.9	18367.88	220207	100.1429 ng/ml
Carbamazepine	5.601	3731404	8688.38	8.4	1899.60	1925683	93.0788 ng/ml
Maprotiline	5.667	217102	955.36	264.8	1338.18	220207	87.8413 ng/ml
Midazolam	5.842	347346	5183.82	94.8	3636.06	400714	96.1918 ng/ml
Nortriptyline	5.716	401124	27732.77	37.0	3133.90	118078	98.4892 ng/ml
Topiramate	4.977	30449	552.42	45.3	24.85	30249	94.0271 ng/ml

AM #28 Multi-Drug Quant. Results

Batch results D:\MassHunter\Data\2022\AM 27-28\090922 AM 28 P1 P2 CS\QuantResults\AM 28 P2.batch.bin
Calibration Last Update 9/16/2022 8:48:01 AM

Instrument	Falco (069901)	**Data File**	p2 Cal 6-250ng.d
Type	Cal	**Sample**	p2 Cal 6-250ng
Acq. Method	AM 28 MDQ P2 Updated 081022 CS.m	**Operator**	Celena Shrum
Sample Position	P6-C7	**Comment**	
Injection Volume	5		
Acq. Date-Time	9/10/2022 2:20:07 AM		
Sample Info.			

Sample Chromatogram



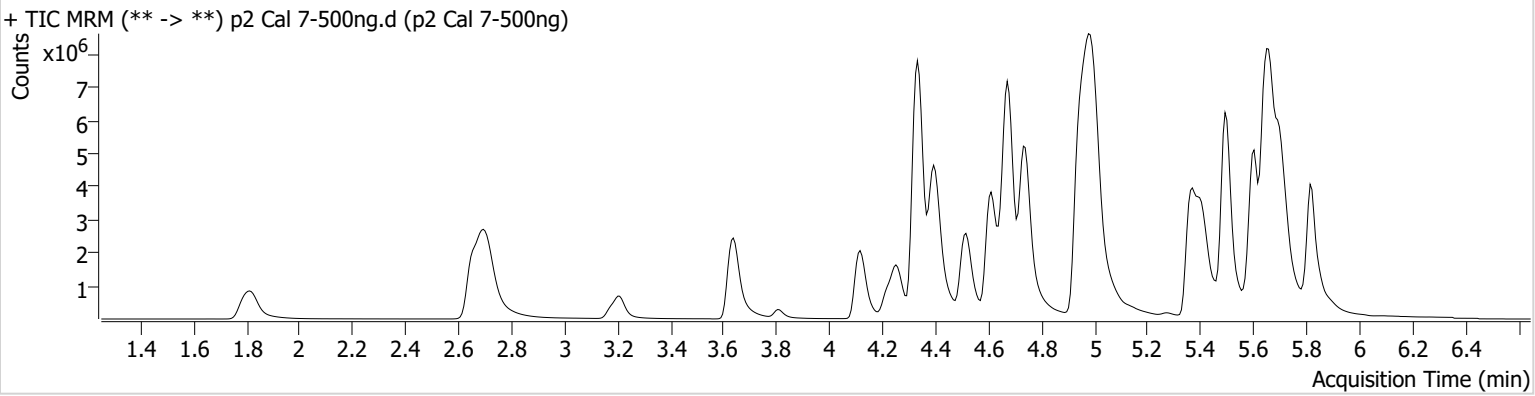
Name	RT	Resp.	S/N	Ratio		S/N	ISTD Resp.	Final Conc.
10-OH-Carbazepine	5.001	4183659	1461.52	88.8		55949.66	645276	250.6142 ng/ml
alpha-hydroxymidazolam	5.807	1242337	5251.26	62.3		6899.38	427521	248.6453 ng/ml
Amitriptyline	5.701	1172758	2728.89	107.2		266.74	214019	251.3981 ng/ml
Carbamazepine	5.607	6754582	9317.55	8.4		2937.06	1330155	240.9993 ng/ml
Maprotiline	5.667	415287	10570.68	318.4	**High**	2889.75	214019	173.8026 ng/ml
Midazolam	5.842	713688	2563.79	92.2		3723.67	319191	247.1621 ng/ml
Nortriptyline	5.722	912691	14403.04	36.6		2965.23	108622	242.9818 ng/ml
Topiramate	4.977	45575	527.44	44.0		28991.34	19226	225.3363 ng/ml

AM #28 Multi-Drug Quant. Results

Batch results D:\MassHunter\Data\2022\AM 27-28\090922 AM 28 P1 P2 CS\QuantResults\AM 28 P2.batch.bin
Calibration Last Update 9/16/2022 8:48:01 AM

Instrument	Falco (069901)	**Data File**	p2 Cal 7-500ng.d
Type	Cal	**Sample**	p2 Cal 7-500ng
Acq. Method	AM 28 MDQ P2 Updated 081022 CS.m	**Operator**	Celena Shrum
Sample Position	P6-B7	**Comment**	
Injection Volume	5		
Acq. Date-Time	9/10/2022 2:30:49 AM		
Sample Info.			

Sample Chromatogram



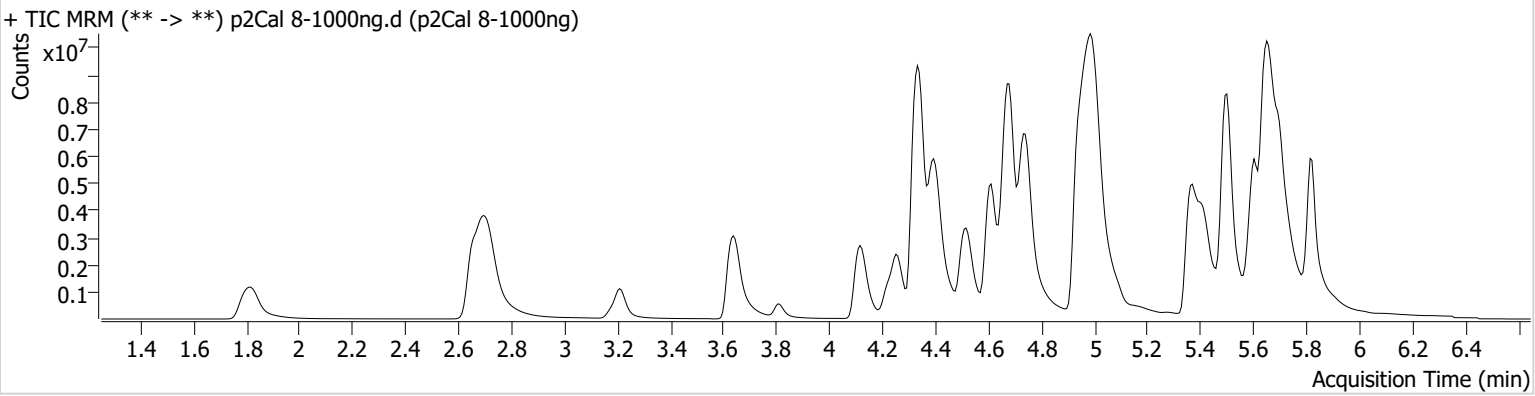
Name	RT	Resp.	S/N	Ratio		S/N	ISTD Resp.	Final Conc.
10-OH-Carbazepine	5.001	5723172	4281.37	87.2		148319.31	445538	496.0733 ng/ml
alpha-hydroxymidazolam	5.807	1672564	14360.50	63.6		4843.48	325875	439.4767 ng/ml
Amitriptyline	5.701	2072052	3135.85	107.3		54.81	187816	506.3023 ng/ml
Carbamazepine	5.607	8820631	11411.27	8.4		1165.89	830880	501.8565 ng/ml
Maprotiline	5.674	509087	296.87	436.8	High	2191.36	187816	243.1584 ng/ml
Midazolam	5.849	1052457	4182.84	92.5		1233.71	240908	482.3407 ng/ml
Nortriptyline	5.722	1610400	47979.20	36.0		8129.22	93694	496.5953 ng/ml
Topiramate	4.984	34410	148465.05	51.3	High	22446.12	11409	287.5004 ng/ml

AM #28 Multi-Drug Quant. Results

Batch results D:\MassHunter\Data\2022\AM 27-28\090922 AM 28 P1 P2 CS\QuantResults\AM 28 P2.batch.bin
Calibration Last Update 9/16/2022 8:48:01 AM

Instrument	Falco (069901)	**Data File**	p2Cal 8-1000ng.d
Type	Cal	**Sample**	p2Cal 8-1000ng
Acq. Method	AM 28 MDQ P2 Updated 081022 CS.m	**Operator**	Celena Shrum
Sample Position	P6-A7	**Comment**	
Injection Volume	5		
Acq. Date-Time	9/10/2022 2:41:32 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio		S/N	ISTD Resp.	Final Conc.
10-OH-Carbazepine	5.008	7389987	6095.93	86.6		328213.23	283993	1004.4379 ng/ml
alpha-hydroxymidazolam	5.807	1637251	2621.12	63.5		6559.52	193191	725.9223 ng/ml
Amitriptyline	5.701	3214230	1084.30	103.0		6945.54	148567	993.0338 ng/ml
Carbamazepine	5.614	9318220	38651.02	8.6		14632.18	431157	1019.8110 ng/ml
Maprotiline	5.674	525326	898.36	634.2	High	3494.08	148567	317.4909 ng/ml
Midazolam	5.849	1436137	6095.39	93.5		200.04	154649	1024.6141 ng/ml
Nortriptyline	5.722	2563869	41493.38	35.7		26485.63	73099	1012.9197 ng/ml
Topiramate	4.991	38788	196800.09	46.7		18607.81	5193	716.2619 ng/ml