REVIEWED
By Celena Shrum at 3:12 pm, Jul 06, 2022

SC TS 7/5/2022

Worklist: 6020

LAB_CASE	ITEM	ITEM_TYPE	DESCRIPTION	
M2022-2188	2	BCK	AM 28 Blood Multi-Drug Quant Panel 2 by LC-QQQ	
M2022-2448	1	BCK	AM 28 Blood Multi-Drug Quant Panel 2 by LC-QQQ	
P2022-1323	1	BCK	AM 28 Blood Multi-Drug Quant Panel 2 by LC-QQQ	
P2022-1323	3	BCK	AM 28 Blood Multi-Drug Quant Panel 2 by LC-QQQ	
P2022-1943	1	BCK	AM 28 Blood Multi-Drug Quant Panel 2 by LC-QQQ	

BC TS 7/6/2022

Worklist: 6022

LAB_CASE	ITEM	ITEM_TYPE	DESCRIPTION	
M2022-1436	1	BCK	AM 28 Blood Multi-Drug Quant Panel 2 by LC-QQQ	
P2022-1664	1	BCK	AM 28 Blood Multi-Drug Quant Panel 2 by LC-QQQ	

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

Extraction Date: 07/01/22 Analyst: Sarah Collins
Plate lot#: 220316 Plate Retest Date: 09/16/22
Mobile phase A: 5mM Amm Form + 0.01% FA Mobile phase B: 0.01% Formic Acid in MeOH
Blank Blood Lot: Lampire 20L20723 Blank Urine Lot: N/A
Column: Agilent 120 EC-C18 (2.1x 100-2.7um) LCMS-QQQ ID: 069901

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.
☒ 3. Using a calibrated pipette, pipette 250µL blood or 250µL hydrolyzed urine in wells of analytical (standards) plate. Pipette ID: #16
☐ 4. Place on shaking incubator at ambient temp., 900rpm for 15 minutes. (SKIPPED PER DEVIATION)
☒ 5. Pipette **250µL 0.5M ammonium hydroxide** in wells of analytical plate.
☒ 6. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
☒ 7. Transfer **300µL of blood+base/urine+base** mixture to corresponding wells of SLE+ plate.
☒ 8. 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)***
☒ 9. Wait 5 minutes.
☒ 10. Add **900uL ethyl acetate.**
☒ 11. Wait 5 minutes.
☒ 12. Apply positive pressure for approx. 15 seconds. ***(10-15 PSI- Selector to the left).***
☒ 13. Add **900uL ethyl acetate.**
☒ 14. Wait 5 minutes.
☒ 15. Apply positive pressure for approx. 15 seconds. ***(10-15 PSI- Selector to the left).***
☒ 16. Remove plate containing eluate.
☐ 17. Add 50µL 1% HCl in MeOH to wells and place plate cover on plate before drying. This step is required for urine samples but optional for blood samples.
☒ 18. Place on SPE Dry and evaporate to dryness at approx. 35°C.
☒ 19. 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.

COMMENTS: *Curve Range Limits: chlorpheniramine 10-1000, maprotiline 5-250*
Only alpha-hydroxymidazolam, amitriptyline, chlorpheniramine, hydroxyzine, maprotiline, midazolam, nortriptyline, and topiramate were evaluated in this run.

Tamara Salazar had samples in this batch (worklist 6022). Sarah Collins acted as the primary analyst and performed steps 5-19. *I, Tamara Salazar, approved of all steps utilized in this method.* TS SC

SC TS

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

Analytical plate map layout

	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				IS + Cal. 8		m2022-2448-1	IS + Cal. 8
B	IS + Cal. 2	IS + QC_2		IS + Cal. 2	IS + QC_2				IS + Cal. 7		p2022-1323-1	IS + Cal. 7
C	IS + Cal. 3	IS + QC_3		IS + Cal. 3	IS + QC_3				IS + Cal. 6		m2022-2188-2	IS + Cal. 6
D	IS + Cal. 4	IS + QC_4		IS + Cal. 4	IS + QC_4				IS + Cal. 5		negative blood	IS + Cal. 5
E	IS + Cal. 5			IS + Cal. 5				IS + QC_4	IS + Cal. 4	P2022-1664-1 (TS Sample)	IS + QC_4	IS + Cal. 4
F	IS + Cal. 6			IS + Cal. 6				IS + QC_3	IS + Cal. 3	M2022-1436-1 (TS Sample)	IS + QC_3	IS + Cal. 3
G	IS + Cal. 7			IS + Cal. 7				IS + QC_2	IS + Cal. 2	p2022-1943-1	IS + QC_2	IS + Cal. 2
H	IS + Cal. 8			IS + Cal. 8				IS + QC_1	IS + Cal. 1	p2022-1323-3	IS + QC_1	IS + Cal. 1

All wells to contain 60 µl of Trapping Solution

SLE plate map layout

BC TS

	1	2	3	4	5	6	7	8	9	10	11	12
A						m2022-2448-1	IS + Cal. 8					
B						p2022-1323-1	IS + Cal. 7					
C						m2022-2188-2	IS + Cal. 6					
D						negative blood	IS + Cal. 5					
E					p2022-1664-1 (TS sample)	IS + QC_4	IS + Cal. 4					
F					m2022-1436-1 (TS sample)	IS + QC_3	IS + Cal. 3					
G					p2022-1943-1	IS + QC_2	IS + Cal. 2					
H					p2022-1323-3	IS + QC_1	IS + Cal. 1					

All wells to contain 60 µl of Trapping Solution

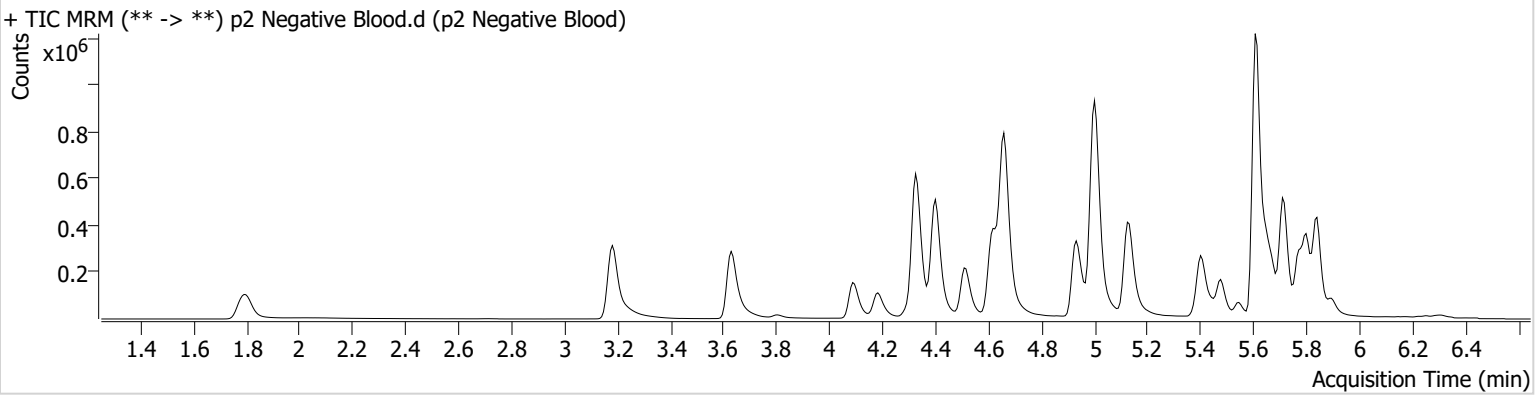
SC TS

AM #28 Multi-Drug Quant. Results

Batch results	D:\MassHunter\Data\2022\AM 27-28\070122 AM 27 28 P1 P2 SC\QuantResults\AM 28 P2 compounds used in data.batch.bin
Calibration Last Update	7/5/2022 11:38:54 AM

Instrument	Falco (069901)	**Data File**	p2 Negative Blood.d
Type	Sample	**Sample**	p2 Negative Blood
Acq. Method	AM 28 MDQ P2 061022.m	**Operator**	Sarah Collins
Sample Position	P2-D6	**Comment**	
Injection Volume	5		
Acq. Date-Time	7/1/2022 3:26:22 PM		
Sample Info.			

Sample Chromatogram



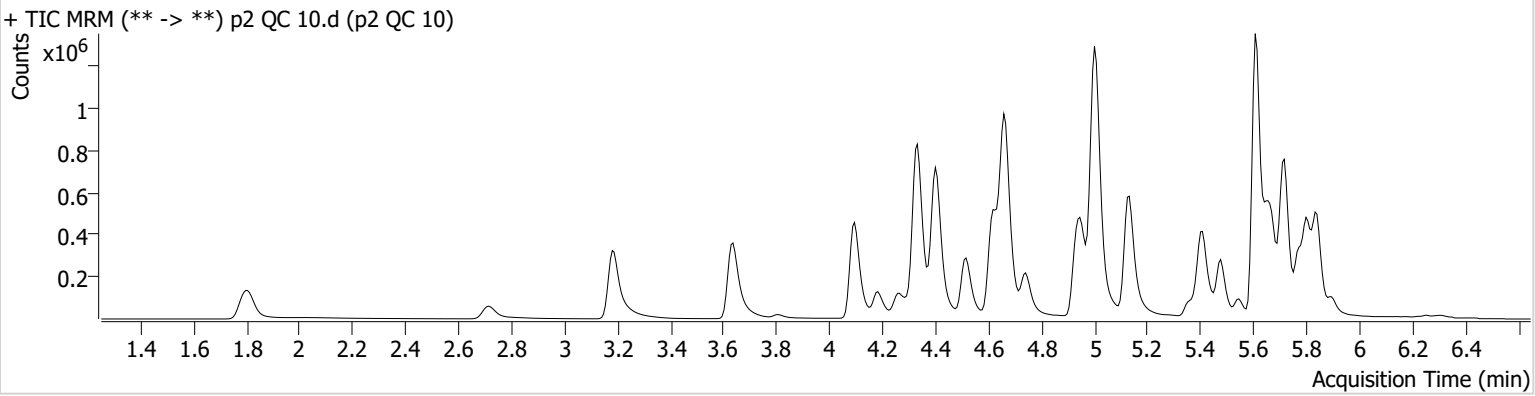
SC TS

AM #28 Multi-Drug Quant. Results

Batch results D:\MassHunter\Data\2022\AM 27-28\070122 AM 27 28 P1 P2 SC\QuantResults\AM 28 P2 compounds used in data.batch.bin
Calibration Last Update 7/5/2022 11:38:54 AM

Instrument	Falco (069901)	**Data File**	p2 QC 10.d
Type	QC	**Sample**	p2 QC 10
Acq. Method	AM 28 MDQ P2 061022.m	**Operator**	Sarah Collins
Sample Position	P2-H6	**Comment**	
Injection Volume	5		
Acq. Date-Time	7/1/2022 2:11:18 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
alpha-hydroxymidazolam	5.805	128512	617.47	64.1	8967.91	530088	10.4290 ng/ml
Amitriptyline	5.706	20144	128.82	119.6	559.11	94985	10.4170 ng/ml
Chlorpheniramine	5.135	454488	1775.81	0.2	23.31	1152458	8.2075 ng/ml
Hydroxyzine	5.716	85514	1355.22	78.6	1134.20	340967	9.8555 ng/ml
Maprotiline	5.679	11690	70.05	227.0	132.09	94985	11.0086 ng/ml
Midazolam	5.779	40644	1041.77	95.9	33881.19	544675	10.5190 ng/ml
Nortriptyline	5.728	20047	20728.22	33.3	1782.41	63883	11.5301 ng/ml
Topiramate	4.993	7008	323.61	46.3	6887.07	89052	10.0429 ng/ml

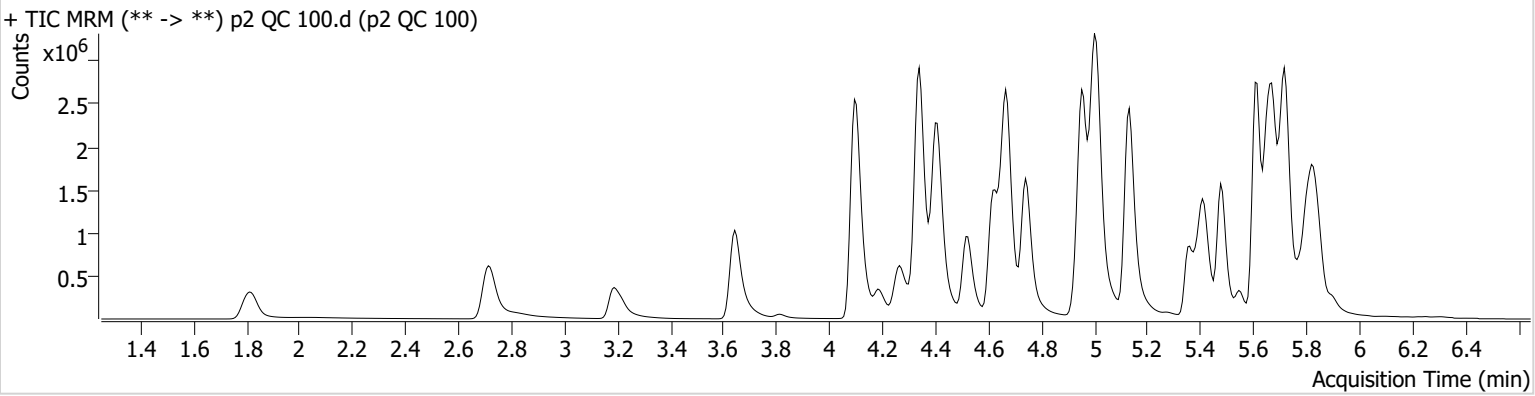
SC TS

AM #28 Multi-Drug Quant. Results

Batch results D:\MassHunter\Data\2022\AM 27-28\070122 AM 27 28 P1 P2 SC\QuantResults\AM 28 P2 compounds used in data.batch.bin
Calibration Last Update 7/5/2022 11:38:54 AM

Instrument	Falco (069901)	**Data File**	p2 QC 100.d
Type	QC	**Sample**	p2 QC 100
Acq. Method	AM 28 MDQ P2 061022.m	**Operator**	Sarah Collins
Sample Position	P2-G6	**Comment**	
Injection Volume	5		
Acq. Date-Time	7/1/2022 5:35:01 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
alpha-hydroxymidazolam	5.805	909963	3843.32	62.0	3030.86	399216	102.7961 ng/ml
Amitriptyline	5.706	384346	1662.25	113.6	487.81	189384	104.7452 ng/ml
Chlorpheniramine	5.135	5357866	5566.87	0.2	468.40	1420119	103.8037 ng/ml
Hydroxyzine	5.716	1151436	43609.81	78.8	117981.76	501221	101.5535 ng/ml
Maprotiline	5.679	206388	2200.35	230.9	1783.92	189384	103.2796 ng/ml
Midazolam	5.779	336800	2268.68	91.5	1746.80	499613	101.5111 ng/ml
Nortriptyline	5.728	396885	565474.77	36.8	1676.11	137037	100.6780 ng/ml
Topiramate	4.986	35639	35481.36	39.6	415.09	62300	86.2907 ng/ml

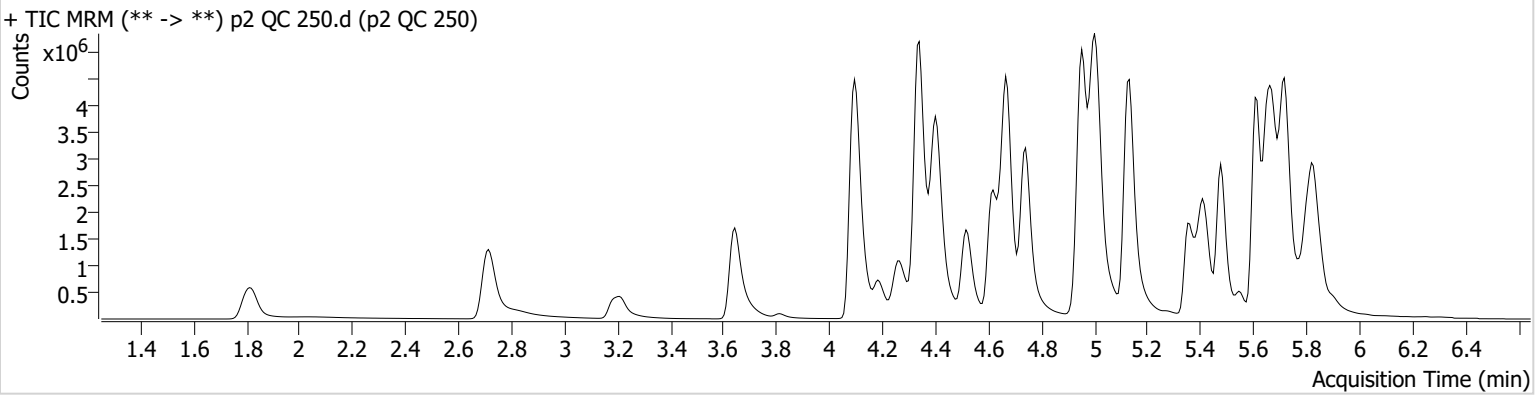
SC TS

AM #28 Multi-Drug Quant. Results

Batch results D:\MassHunter\Data\2022\AM 27-28\070122 AM 27 28 P1 P2 SC\QuantResults\AM 28 P2 compounds used in data.batch.bin
Calibration Last Update 7/5/2022 11:38:54 AM

Instrument	Falco (069901)	**Data File**	p2 QC 250.d
Type	QC	**Sample**	p2 QC 250
Acq. Method	AM 28 MDQ P2 061022.m	**Operator**	Sarah Collins
Sample Position	P2-F6	**Comment**	
Injection Volume	5		
Acq. Date-Time	7/1/2022 2:32:44 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
alpha-hydroxymidazolam	5.805	1639370	2751.54	62.4	4477.14	287605	257.9119 ng/ml
Amitriptyline	5.706	759227	2129.23	112.0	958.42	147253	267.0204 ng/ml
Chlorpheniramine	5.135	11841132	18814.47	0.2	3749.98	1254318	264.1690 ng/ml
Hydroxyzine	5.716	2222347	2839.51	78.1	191381.97	403906	245.1580 ng/ml
Maprotiline	5.679	334863	70145.48	265.3	1530.49	147253	216.3169 ng/ml
Midazolam	5.779	638442	1009.61	93.0	696.84	405879	237.9404 ng/ml
Nortriptyline	5.728	700332	493337.21	36.8	950.35	97490	248.6843 ng/ml
Topiramate	4.986	56474	45376.18	42.0	16990.94	39164	220.7404 ng/ml

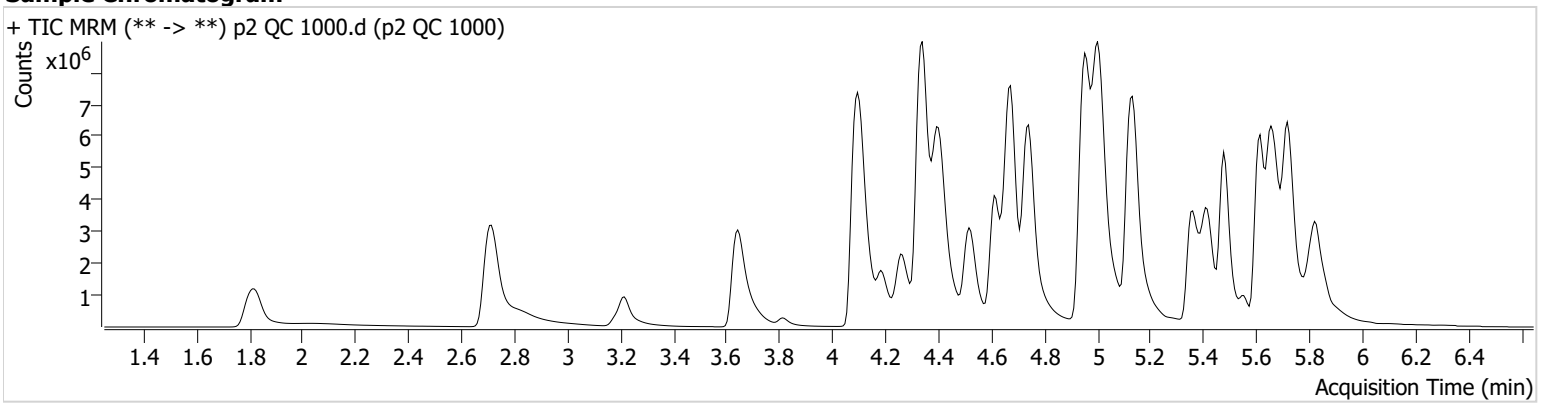
SC TS

AM #28 Multi-Drug Quant. Results

Batch results D:\MassHunter\Data\2022\AM 27-28\070122 AM 27 28 P1 P2 SC\QuantResults\AM 28 P2 compounds used in data.batch.bin
Calibration Last Update 7/5/2022 11:38:54 AM

Instrument	Falco (069901)	**Data File**	p2 QC 1000.d
Type	QC	**Sample**	p2 QC 1000
Acq. Method	AM 28 MDQ P2 061022.m	**Operator**	Sarah Collins
Sample Position	P2-E6	**Comment**	
Injection Volume	5		
Acq. Date-Time	7/1/2022 2:54:10 PM		
Sample Info.			

Sample Chromatogram



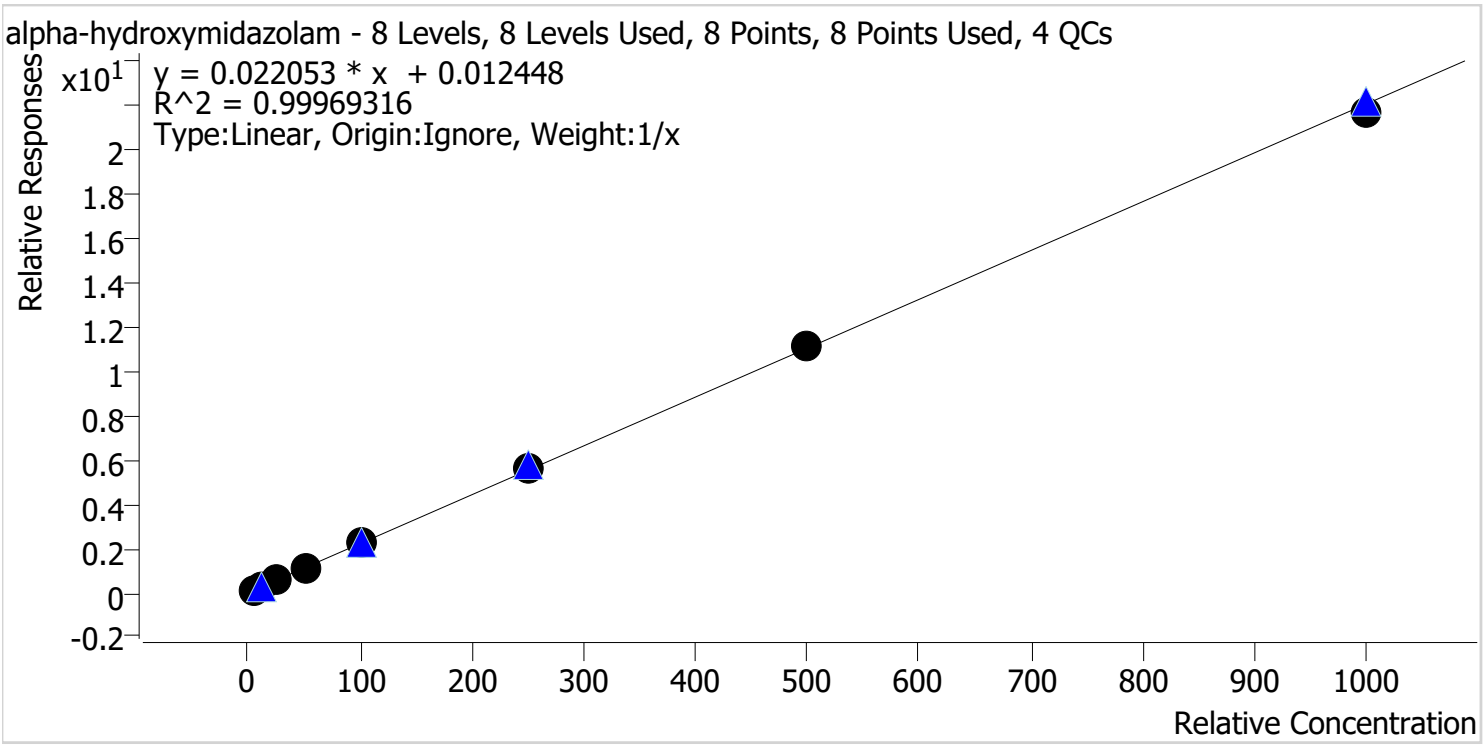
	Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
	alpha-hydroxymidazolam	5.812	2876795	6728.86	63.4	3174.63	129821	1004.2940 ng/ml
	Amitriptyline	5.699	919894	3014.11	106.9	4928.58	44586	1070.2852 ng/ml
	Chlorpheniramine	5.135	23696939	217443.33	0.2	1203.48	725642	921.0902 ng/ml
	Hydroxyzine	5.716	4467258	2705989.88	79.2	1919335.76	206270	969.0399 ng/ml
*	~~Maprotiline~~	~~5.679~~	~~295295~~	~~1828.19~~	~~345.6~~ **~~High~~**	~~2764.26~~	~~44586~~	~~631.4233 ng/ml~~
	Midazolam	5.779	1325072	891.46	91.5	2735.02	219931	913.6577 ng/ml
	Nortriptyline	5.734	593242	36672.09	37.5	1981.30	19655	1042.6402 ng/ml
	Topiramate	4.986	89503	166706.74	46.3	30126.94	13529	1020.3571 ng/ml

*OCR

SC TS

AM #28 Multi-Drug Quant. Calibration Curve Report

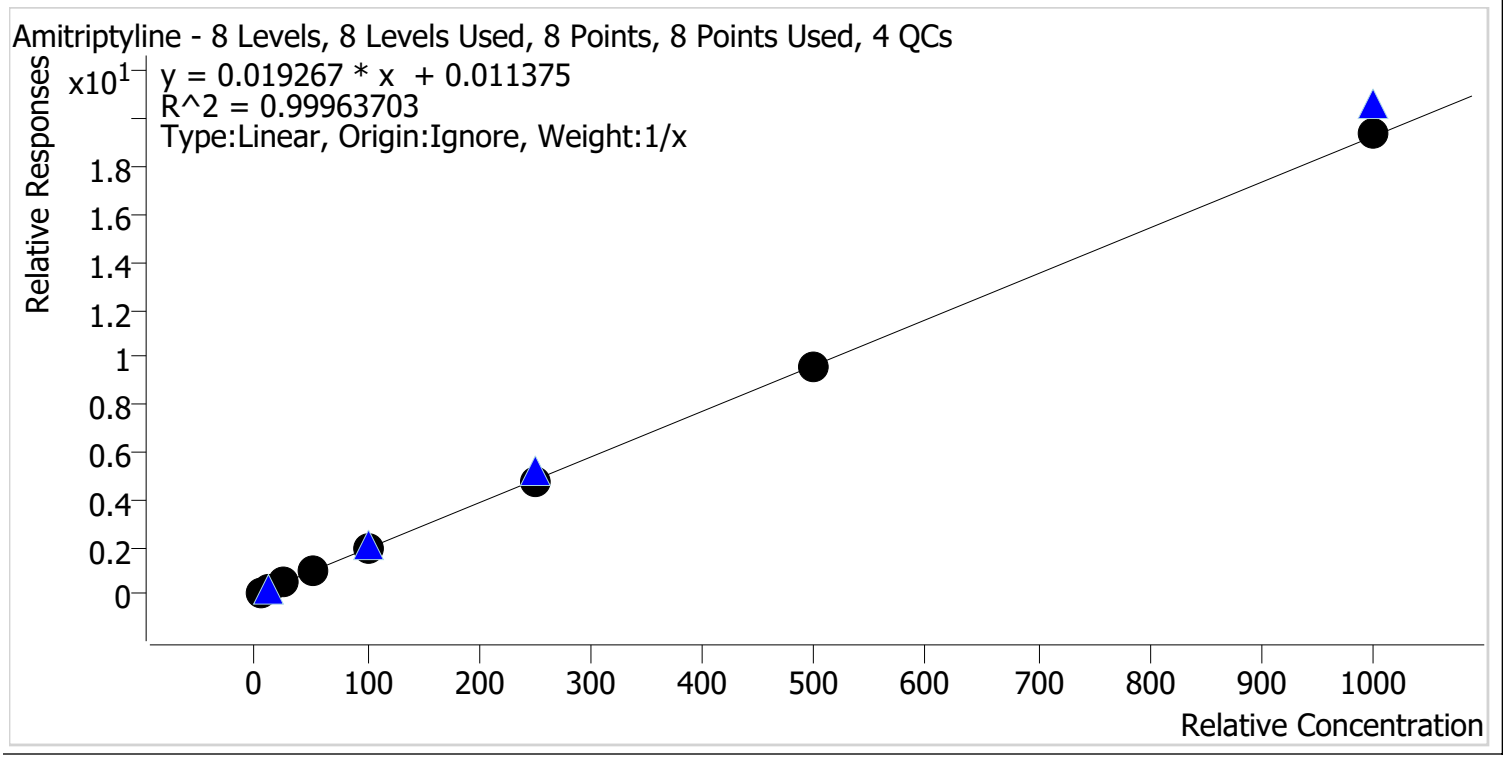
Batch results	D:\MassHunter\Data\2022\AM 27-28\070122 AM 27 28 P1 P2 SC\QuantResults\AM 28 P2 compounds used in data.batch.bin
Last Cal. Update	7/5/2022 11:38 AM
Analyst Name	ISP\datastor
Analyte	alpha-hydroxymidazolam
Internal Standard	alpha-hydroxymidazolam-D4



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
p2 Cal 1-5ng	1	✔	5.0	4.8	95.5
p2 Cal 2-10ng	2	✔	10.0	9.8	98.0
p2 Cal 3 -25ng	3	✔	25.0	25.0	100.1
p2 Cal 4-50ng	4	✔	50.0	51.1	102.2
p2 Cal 5-100ng	5	✔	100.0	101.7	101.7
p2 Cal 6-250ng	6	✔	250.0	256.7	102.7
p2 Cal 7-500ng	7	✔	500.0	505.9	101.2
p2 Cal 8-1000ng	8	✔	1000.0	985.0	98.5

AM #28 Multi-Drug Quant. Calibration Curve Report

Batch results	D:\MassHunter\Data\2022\AM 27-28\070122 AM 27 28 P1 P2 SC\QuantResults\AM 28 P2 compounds used in data.batch.bin
Last Cal. Update	7/5/2022 11:38 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	4.5	89.1
p2 Cal 2-10ng	2	✔	10.0	10.1	101.5
p2 Cal 3 -25ng	3	✔	25.0	25.8	103.2
p2 Cal 4-50ng	4	✔	50.0	54.4	108.9
p2 Cal 5-100ng	5	✔	100.0	99.9	99.9
p2 Cal 6-250ng	6	✔	250.0	244.3	97.7
p2 Cal 7-500ng	7	✔	500.0	497.3	99.5
p2 Cal 8-1000ng	8	✔	1000.0	1003.8	100.4

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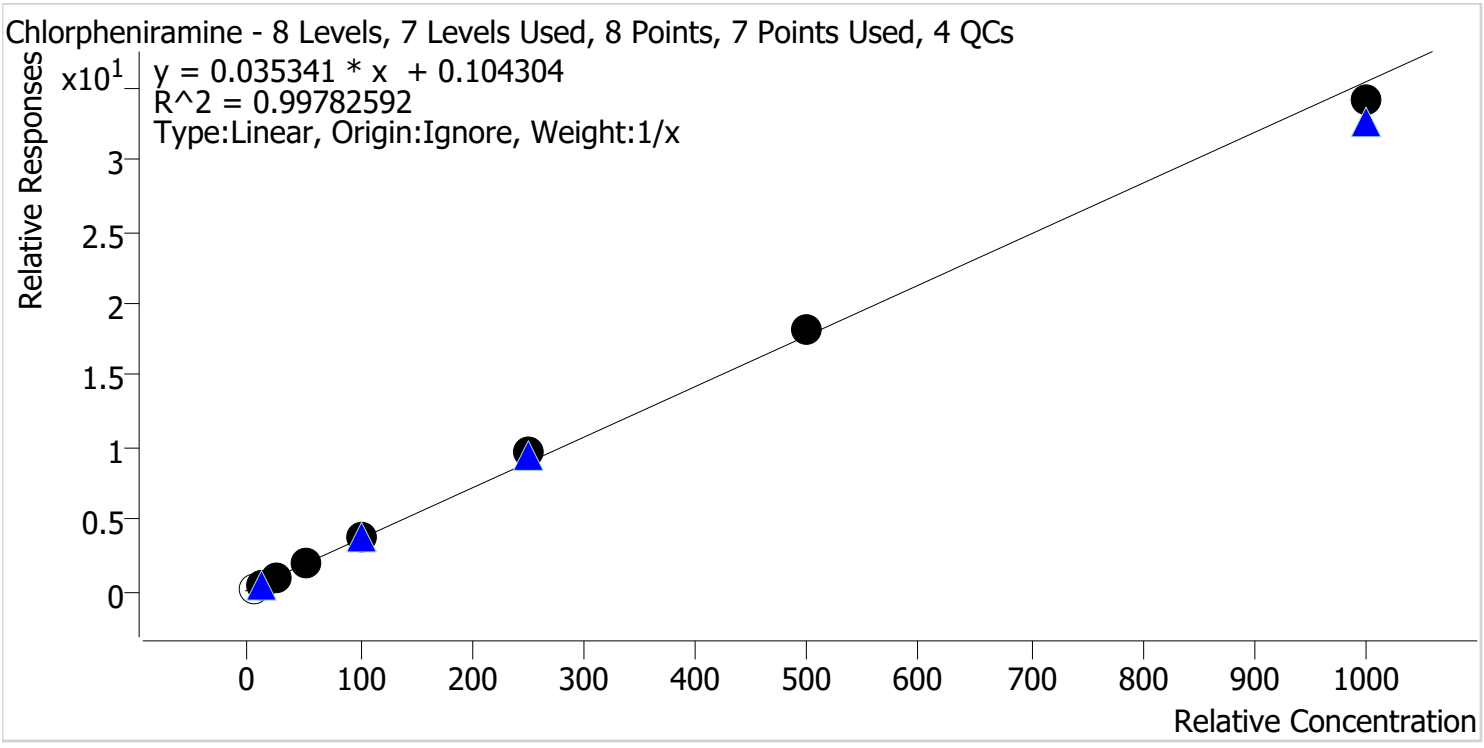
AM #28 Multi-Drug Quant. Calibration Curve Report

Batch results D:\MassHunter\Data\2022\AM 27-28\070122 AM 27 28 P1 P2 SC\QuantResults\AM 28 P2 compounds used in data.batch.bin

Last Cal. Update 7/5/2022 11:38 AM

Analyst Name ISP\datastor

Analyte Chlorpheniramine **Internal Standard** Chlorpheniramine-D6



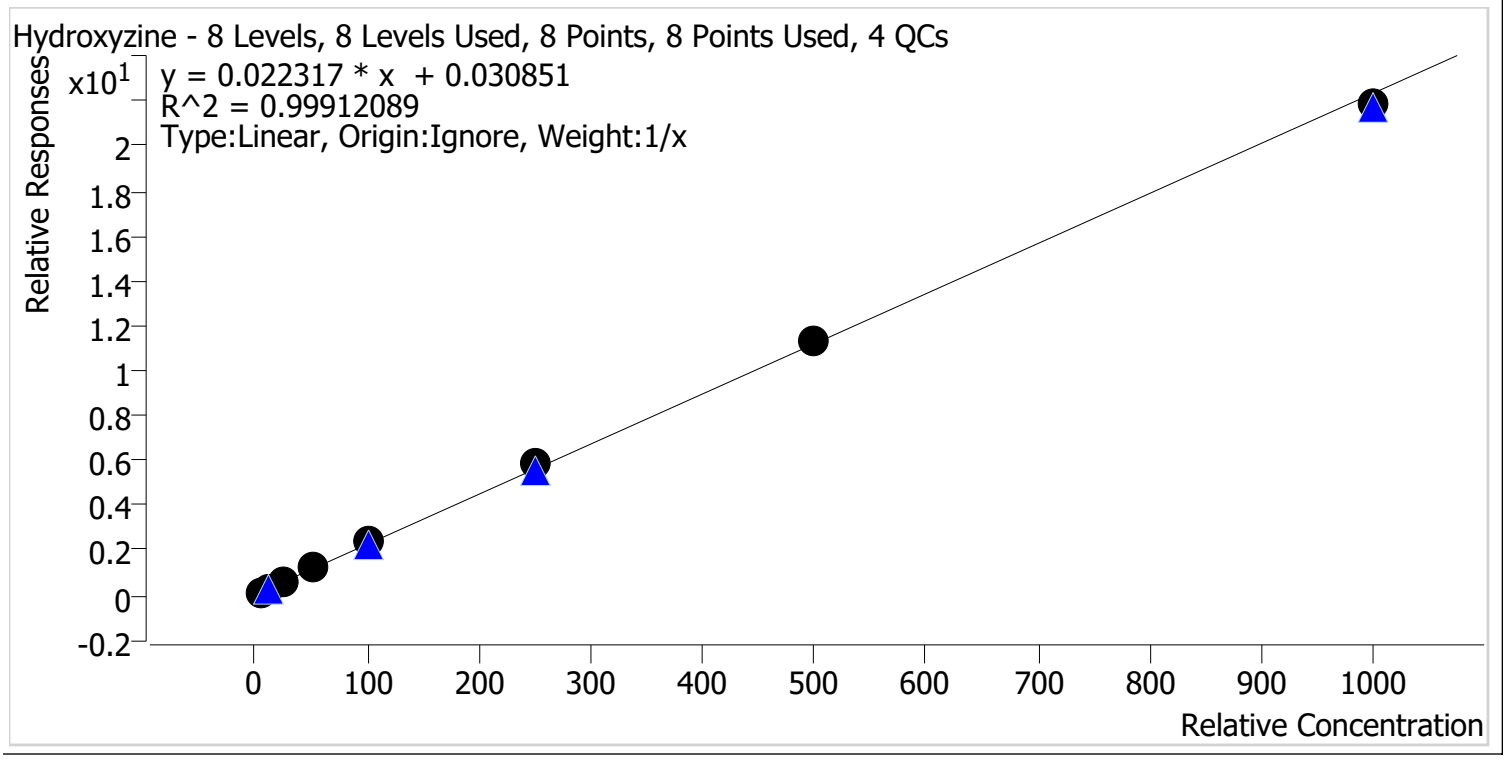
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
p2 Cal 1-5ng	1	✗	5.0	2.4	49.0
p2 Cal 2-10ng	2	✔	10.0	8.9	88.7
p2 Cal 3 -25ng	3	✔	25.0	24.1	96.5
p2 Cal 4-50ng	4	✔	50.0	51.3	102.7
p2 Cal 5-100ng	5	✔	100.0	105.8	105.8
p2 Cal 6-250ng	6	✔	250.0	268.9	107.6
p2 Cal 7-500ng	7	✔	500.0	512.6	102.5
p2 Cal 8-1000ng	8	✔	1000.0	963.4	96.3

Cal 1 dropped due to ratio

SC TS

AM #28 Multi-Drug Quant. Calibration Curve Report

Batch results	D:\MassHunter\Data\2022\AM 27-28\070122 AM 27 28 P1 P2 SC\QuantResults\AM 28 P2 compounds used in data.batch.bin
Last Cal. Update	7/5/2022 11:38 AM
Analyst Name	ISP\datastor
Analyte	Hydroxyzine
Internal Standard	Clozapine-D4

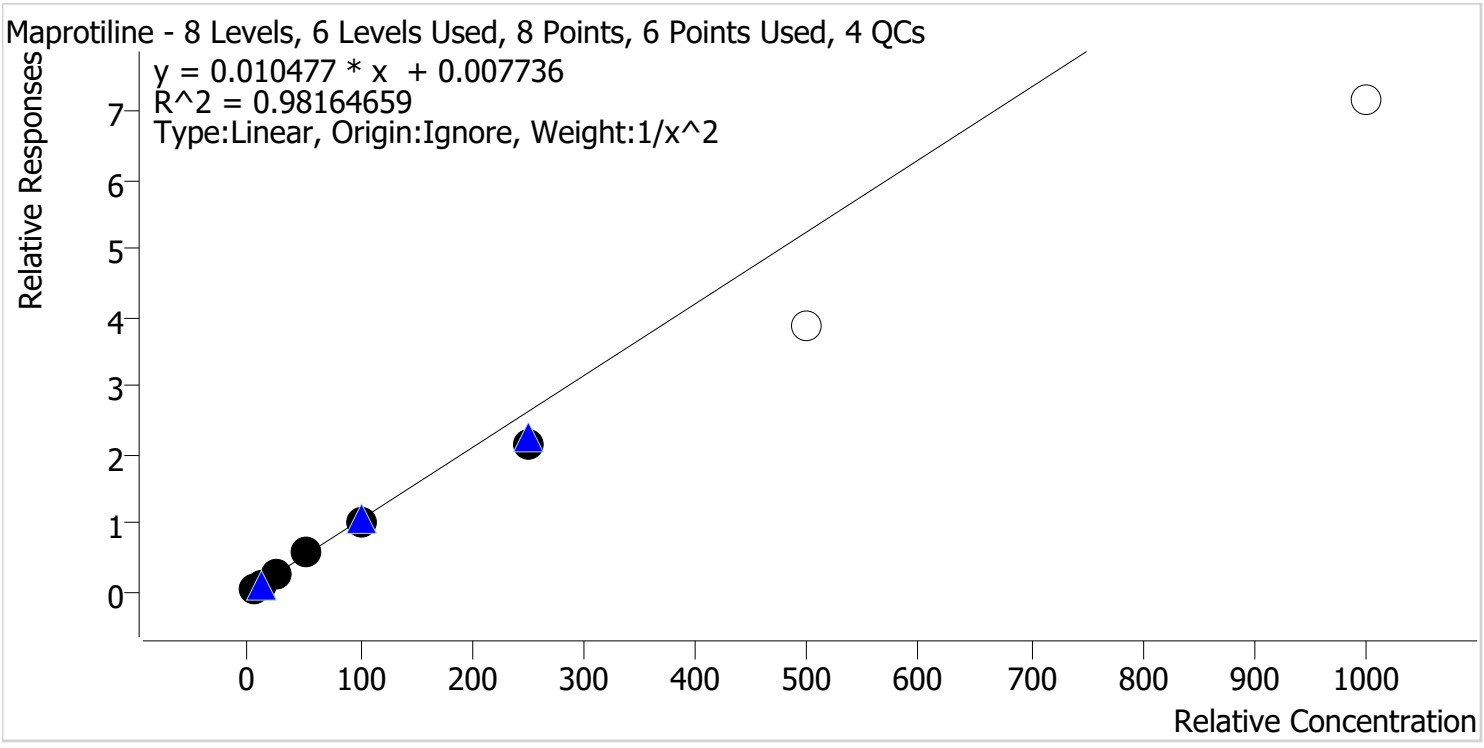


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
p2 Cal 1-5ng	1	✔	5.0	4.2	83.1
p2 Cal 2-10ng	2	✔	10.0	10.1	101.4
p2 Cal 3 -25ng	3	✔	25.0	25.3	101.1
p2 Cal 4-50ng	4	✔	50.0	53.4	106.9
p2 Cal 5-100ng	5	✔	100.0	104.8	104.8
p2 Cal 6-250ng	6	✔	250.0	260.3	104.1
p2 Cal 7-500ng	7	✔	500.0	504.0	100.8
p2 Cal 8-1000ng	8	✔	1000.0	977.9	97.8

SC TS

AM #28 Multi-Drug Quant. Calibration Curve Report

Batch results	D:\MassHunter\Data\2022\AM 27-28\070122 AM 27 28 P1 P2 SC\QuantResults\AM 28 P2 compounds used in data.batch.bin
Last Cal. Update	7/5/2022 11:38 AM
Analyst Name	ISP\datastor
Analyte	Maprotiline
Internal Standard	Amitriptyline-D3



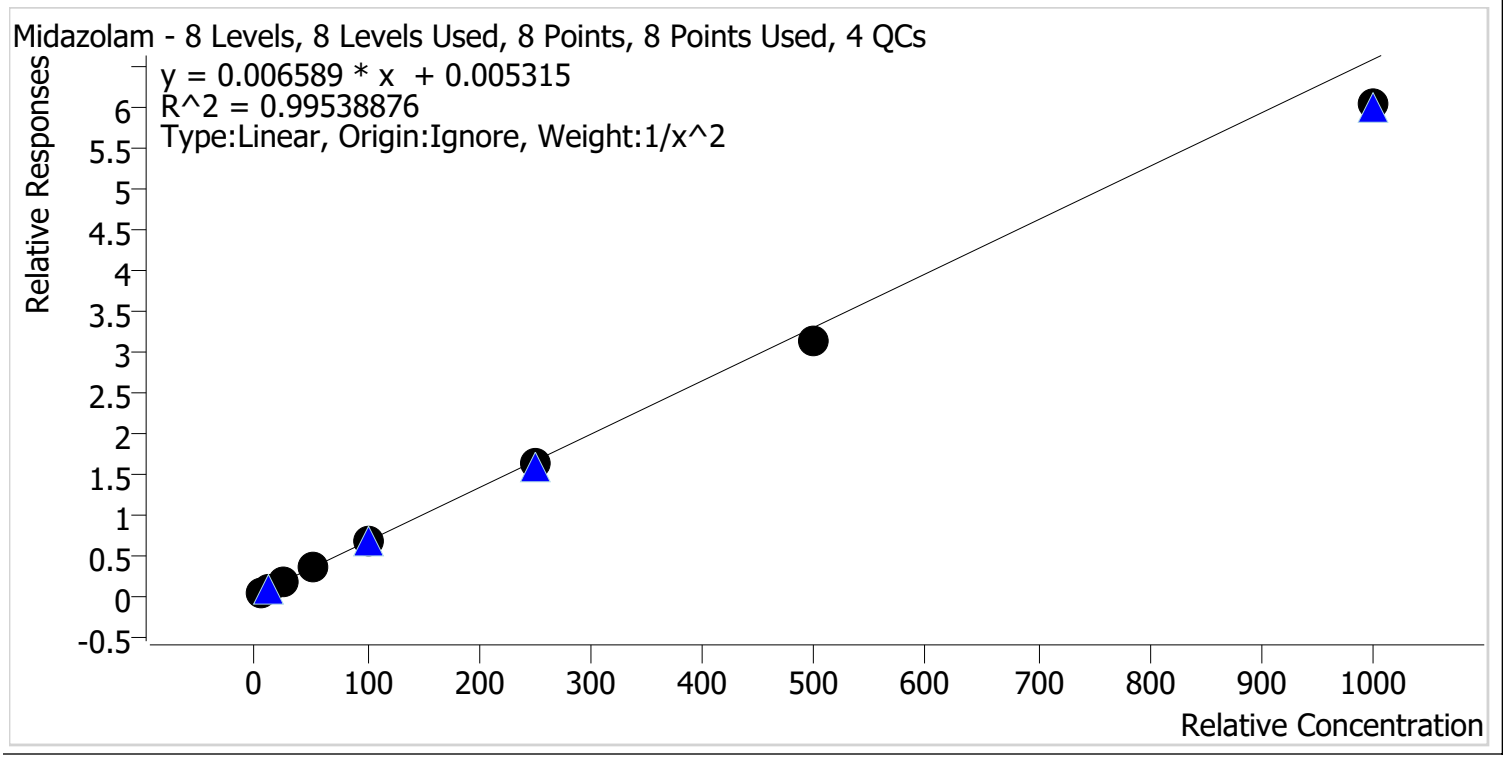
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
p2 Cal 1-5ng	1	✔	5.0	4.9	97.8
p2 Cal 2-10ng	2	✔	10.0	9.9	99.1
p2 Cal 3 -25ng	3	✔	25.0	27.0	108.1
p2 Cal 4-50ng	4	✔	50.0	57.3	114.6
p2 Cal 5-100ng	5	✔	100.0	98.7	98.7
p2 Cal 6-250ng	6	✔	250.0	204.3	81.7
p2 Cal 7-500ng	7	✗	500.0	366.8	73.4
p2 Cal 8-1000ng	8	✗	1000.0	682.2	68.2

Cal 7-8 dropped due to accuracy and ratio

SC TS

AM #28 Multi-Drug Quant. Calibration Curve Report

Batch results	D:\MassHunter\Data\2022\AM 27-28\070122 AM 27 28 P1 P2 SC\QuantResults\AM 28 P2 compounds used in data.batch.bin
Last Cal. Update	7/5/2022 11:38 AM
Analyst Name	ISP\datastor
Analyte	Midazolam
Internal Standard	Midazolam-D4

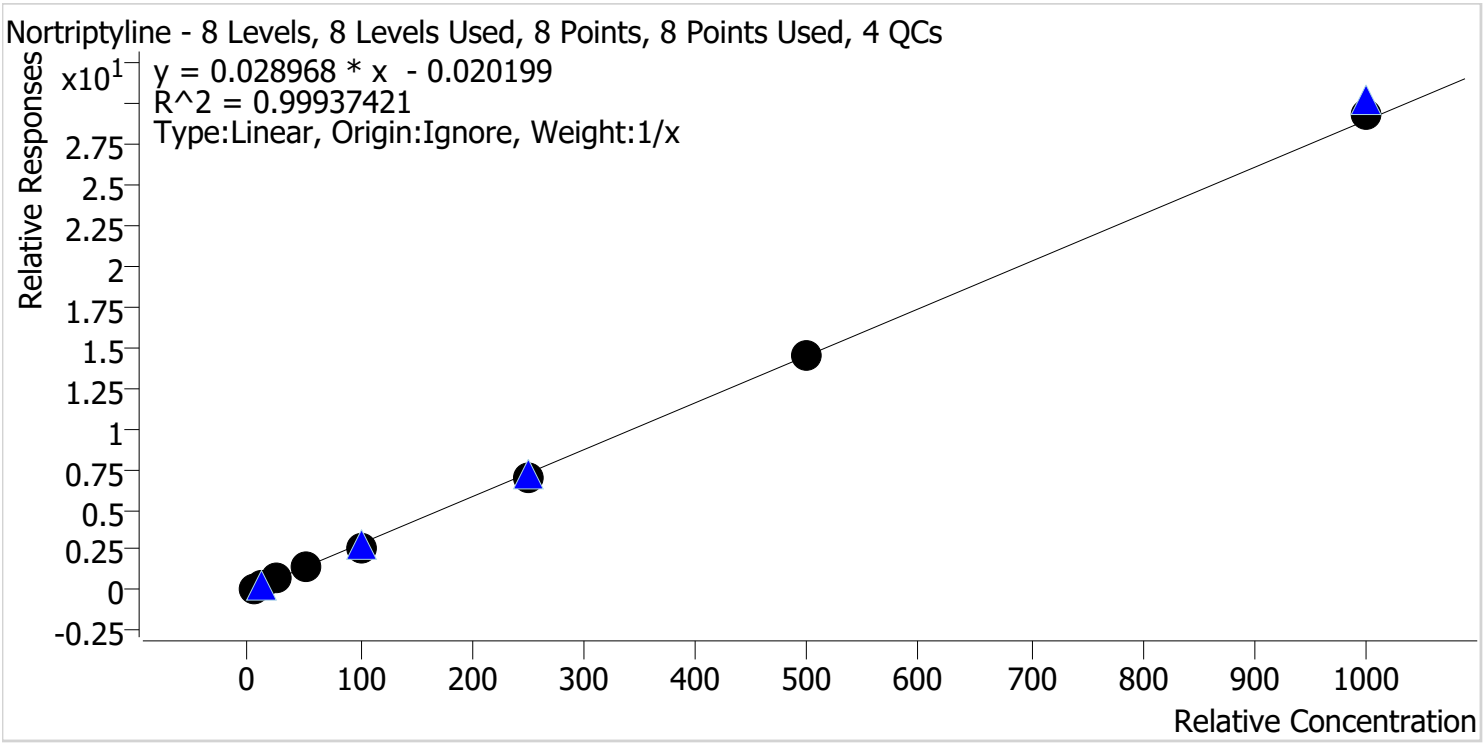


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
p2 Cal 1-5ng	1	✔	5.0	4.7	94.8
p2 Cal 2-10ng	2	✔	10.0	10.8	107.8
p2 Cal 3 -25ng	3	✔	25.0	25.8	103.1
p2 Cal 4-50ng	4	✔	50.0	53.1	106.2
p2 Cal 5-100ng	5	✔	100.0	102.8	102.8
p2 Cal 6-250ng	6	✔	250.0	247.2	98.9
p2 Cal 7-500ng	7	✔	500.0	473.4	94.7
p2 Cal 8-1000ng	8	✔	1000.0	916.1	91.6

SC TS

AM #28 Multi-Drug Quant. Calibration Curve Report

Batch results	D:\MassHunter\Data\2022\AM 27-28\070122 AM 27 28 P1 P2 SC\QuantResults\AM 28 P2 compounds used in data.batch.bin
Last Cal. Update	7/5/2022 11:38 AM
Analyst Name	ISP\datastor
Analyte	Nortriptyline
Internal Standard	Nortriptyline-d3

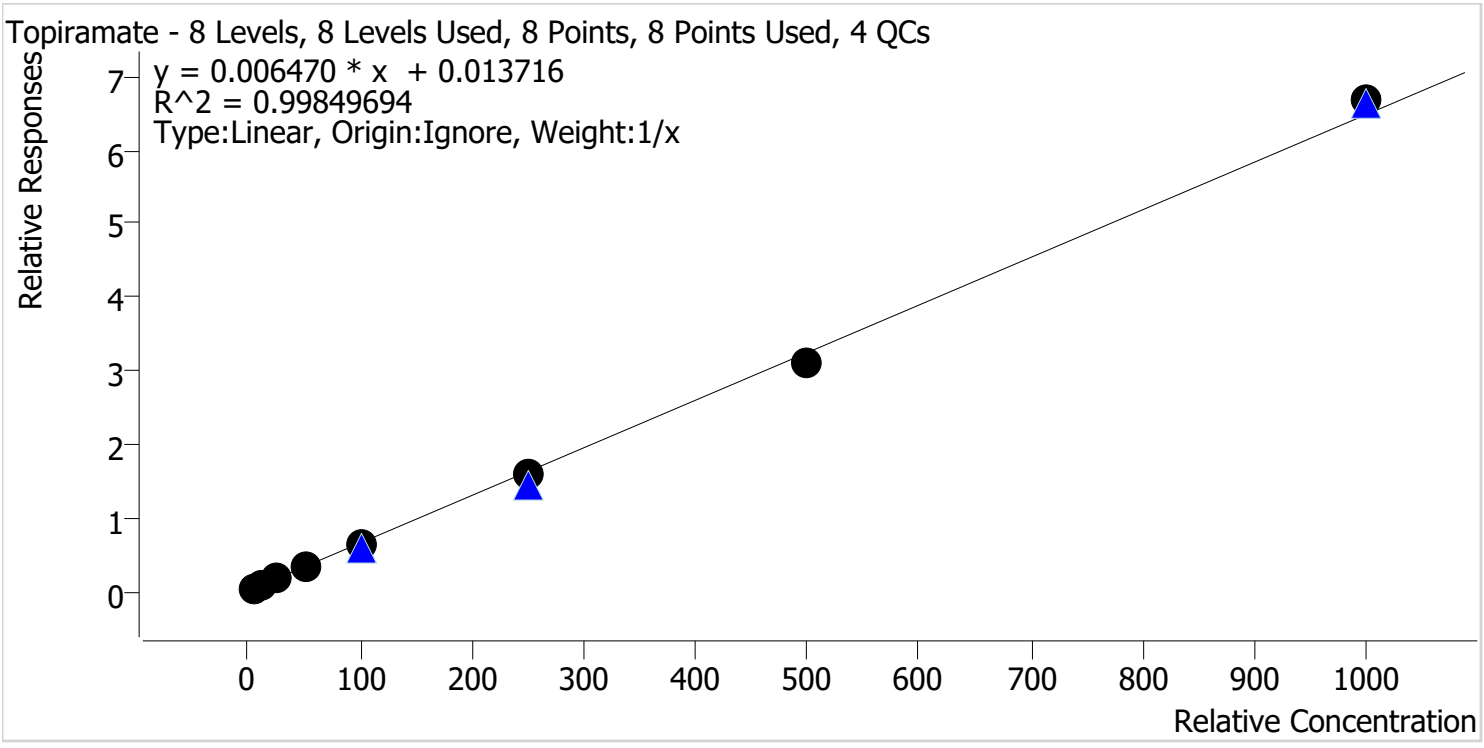


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
p2 Cal 1-5ng	1	✔	5.0	5.4	108.2
p2 Cal 2-10ng	2	✔	10.0	10.5	105.3
p2 Cal 3 -25ng	3	✔	25.0	24.6	98.5
p2 Cal 4-50ng	4	✔	50.0	48.1	96.2
p2 Cal 5-100ng	5	✔	100.0	93.2	93.2
p2 Cal 6-250ng	6	✔	250.0	241.2	96.5
p2 Cal 7-500ng	7	✔	500.0	503.8	100.8
p2 Cal 8-1000ng	8	✔	1000.0	1013.1	101.3

SC TS

AM #28 Multi-Drug Quant. Calibration Curve Report

Batch results	D:\MassHunter\Data\2022\AM 27-28\070122 AM 27 28 P1 P2 SC\QuantResults\AM 28 P2 compounds used in data.batch.bin
Last Cal. Update	7/5/2022 11:38 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	4.7	94.3
p2 Cal 2-10ng	2	✔	10.0	10.6	106.3
p2 Cal 3 -25ng	3	✔	25.0	26.0	104.1
p2 Cal 4-50ng	4	✔	50.0	51.9	103.8
p2 Cal 5-100ng	5	✔	100.0	94.7	94.7
p2 Cal 6-250ng	6	✔	250.0	247.2	98.9
p2 Cal 7-500ng	7	✔	500.0	474.8	95.0
p2 Cal 8-1000ng	8	✔	1000.0	1030.1	103.0

SC TS

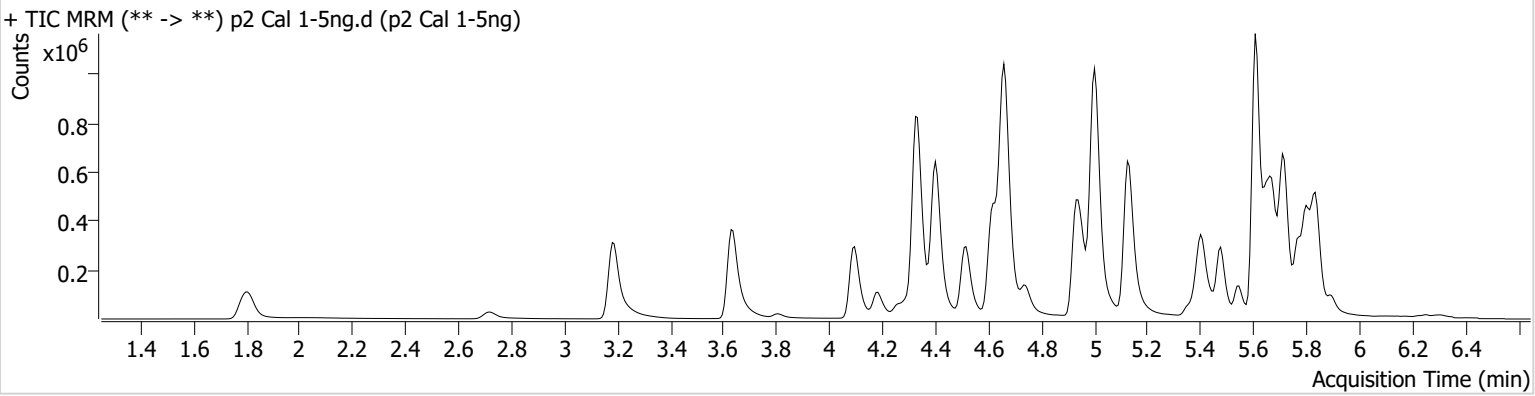
AM #28 Multi-Drug Quant. Results

Batch results D:\MassHunter\Data\2022\AM 27-28\070122 AM 27 28 P1 P2 SC\QuantResults\AM 28 P2 compounds used in data.batch.bin
Calibration Last Update 7/5/2022 11:38:54 AM

Instrument Falco (069901)
Type Cal
Acq. Method AM 28 MDQ P2 061022.m
Sample Position P2-H7
Injection Volume 5
Acq. Date-Time 7/1/2022 12:13:11 PM
Sample Info.

Data File p2 Cal 1-5ng.d
Sample p2 Cal 1-5ng
Operator Sarah Collins
Comment

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio		S/N	ISTD Resp.	Final Conc.
alpha-hydroxymidazolam	5.805	60513	1522.55	59.4		17297.17	513713	4.7771 ng/ml
Amitriptyline	5.706	17228	252.25	115.5		233.27	177265	4.4539 ng/ml
Chlorpheniramine	5.135	285193	19583.85	0.1	Low	60.53	1494284	2.4491 ng/ml
Hydroxyzine	5.716	58697	685.58	78.6		328.12	475005	4.1546 ng/ml
Maprotiline	5.679	10455	200.67	215.1		92.23	177265	4.8910 ng/ml
Midazolam	5.779	21288	5181.79	92.2		462.95	582393	4.7411 ng/ml
Nortriptyline	5.728	17324	28486.38	38.0		163.13	126851	5.4119 ng/ml
Topiramate	4.993	3707	328.11	43.4		1155.60	83835	4.7141 ng/ml

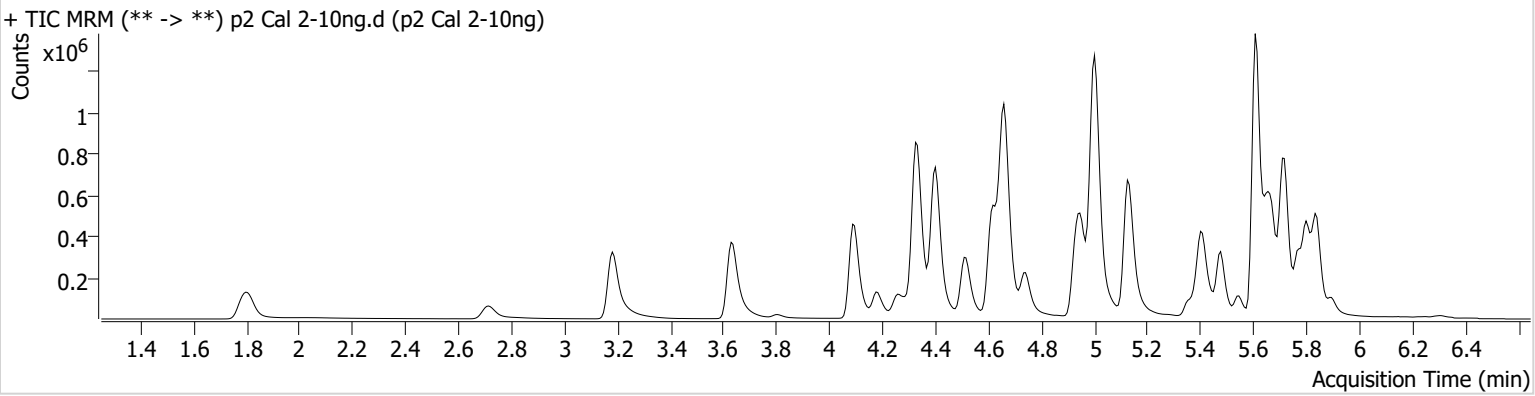
SC TS

AM #28 Multi-Drug Quant. Results

Batch results D:\MassHunter\Data\2022\AM 27-28\070122 AM 27 28 P1 P2 SC\QuantResults\AM 28 P2 compounds used in data.batch.bin
Calibration Last Update 7/5/2022 11:38:54 AM

Instrument	Falco (069901)	**Data File**	p2 Cal 2-10ng.d
Type	Cal	**Sample**	p2 Cal 2-10ng
Acq. Method	AM 28 MDQ P2 061022.m	**Operator**	Sarah Collins
Sample Position	P2-G7	**Comment**	
Injection Volume	5		
Acq. Date-Time	7/1/2022 12:24:03 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
alpha-hydroxymidazolam	5.805	120253	674.27	65.9	416.58	525963	9.8032 ng/ml
Amitriptyline	5.706	23410	480.58	116.1	121.14	113180	10.1453 ng/ml
Chlorpheniramine	5.135	546173	3541.29	0.2	91.59	1307839	8.8654 ng/ml
Hydroxyzine	5.716	105108	825.55	79.7	1260.06	408667	10.1421 ng/ml
Maprotiline	5.679	12622	73.80	227.8	145.00	113180	9.9057 ng/ml
Midazolam	5.779	41042	3352.52	90.8	6740.46	537490	10.7829 ng/ml
Nortriptyline	5.728	20304	603.53	39.0	378.18	71284	10.5298 ng/ml
Topiramate	4.986	7462	5097.92	39.3	1146.59	90462	10.6295 ng/ml

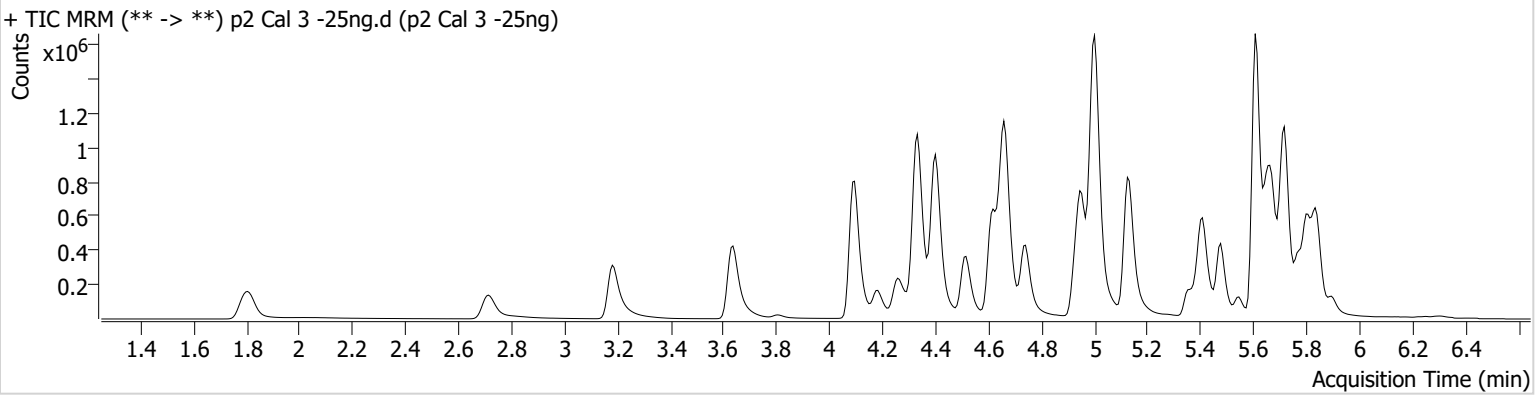
SC TS

AM #28 Multi-Drug Quant. Results

Batch results D:\MassHunter\Data\2022\AM 27-28\070122 AM 27 28 P1 P2 SC\QuantResults\AM 28 P2 compounds used in data.batch.bin
Calibration Last Update 7/5/2022 11:38:54 AM

Instrument	Falco (069901)	**Data File**	p2 Cal 3 -25ng.d
Type	Cal	**Sample**	p2 Cal 3 -25ng
Acq. Method	AM 28 MDQ P2 061022.m	**Operator**	Sarah Collins
Sample Position	P2-F7	**Comment**	
Injection Volume	5		
Acq. Date-Time	7/1/2022 12:34:44 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
alpha-hydroxymidazolam	5.805	275759	1973.49	63.7	3658.41	488658	25.0252 ng/ml
Amitriptyline	5.706	59420	132.90	116.2	20518.48	116851	25.8030 ng/ml
Chlorpheniramine	5.135	1103967	4385.80	0.2	31.69	1153859	24.1209 ng/ml
Hydroxyzine	5.716	216397	1977.13	77.3	11140.10	363665	25.2804 ng/ml
Maprotiline	5.679	33995	226.37	217.4	901.35	116851	27.0300 ng/ml
Midazolam	5.779	90506	8558.89	94.8	4478.93	516879	25.7698 ng/ml
Nortriptyline	5.728	55061	31230.18	38.9	16748.63	79416	24.6318 ng/ml
Topiramate	4.986	14795	209.15	39.9	5683.70	81212	26.0365 ng/ml

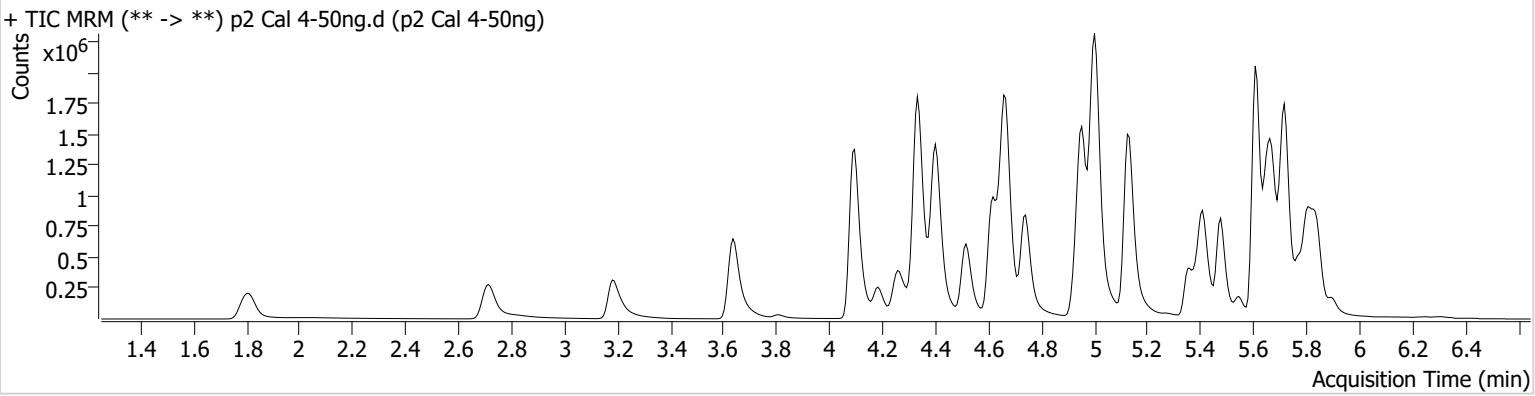
SC TS

AM #28 Multi-Drug Quant. Results

Batch results D:\MassHunter\Data\2022\AM 27-28\070122 AM 27 28 P1 P2 SC\QuantResults\AM 28 P2 compounds used in data.batch.bin
Calibration Last Update 7/5/2022 11:38:54 AM

Instrument	Falco (069901)	**Data File**	p2 Cal 4-50ng.d
Type	Cal	**Sample**	p2 Cal 4-50ng
Acq. Method	AM 28 MDQ P2 061022.m	**Operator**	Sarah Collins
Sample Position	P2-E7	**Comment**	
Injection Volume	5		
Acq. Date-Time	7/1/2022 12:45:27 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
alpha-hydroxymidazolam	5.805	527393	4493.60	64.0	4785.06	462735	51.1179 ng/ml
Amitriptyline	5.706	139726	912.07	113.1	937.77	131795	54.4362 ng/ml
Chlorpheniramine	5.135	2715281	82977.28	0.2	277.84	1415380	51.3316 ng/ml
Hydroxyzine	5.716	543318	11891.75	76.8	173113.87	444104	53.4359 ng/ml
Maprotiline	5.679	80124	358.04	219.3	818.92	131795	57.2887 ng/ml
Midazolam	5.779	187045	1555.22	92.7	946.38	526492	53.1153 ng/ml
Nortriptyline	5.728	127833	8005.04	37.6	1954.95	93144	48.0753 ng/ml
Topiramate	4.993	23794	15550.42	42.2	2616.43	68102	51.8785 ng/ml

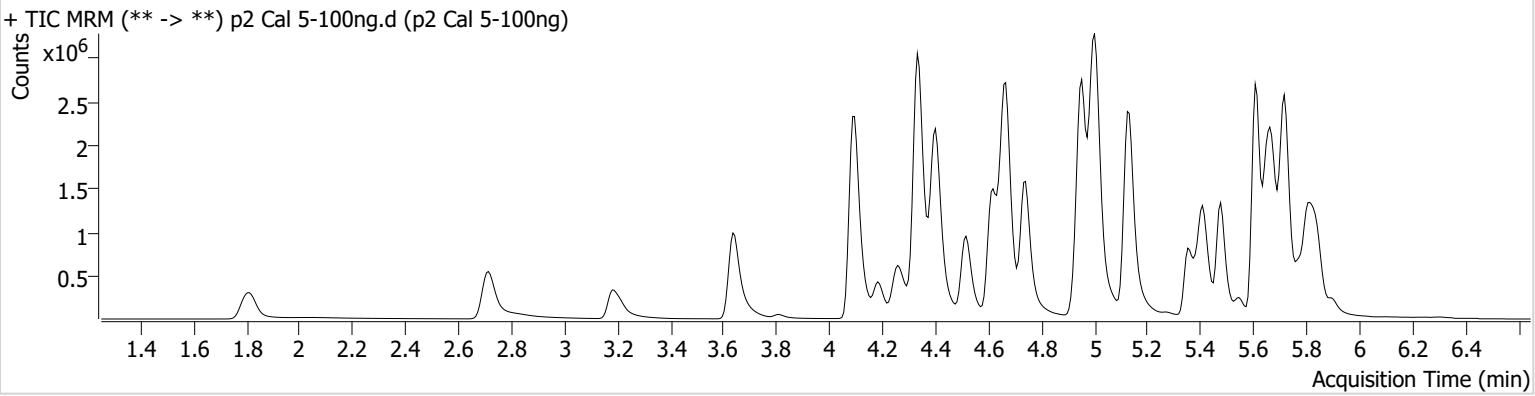
SC TS

AM #28 Multi-Drug Quant. Results

Batch results D:\MassHunter\Data\2022\AM 27-28\070122 AM 27 28 P1 P2 SC\QuantResults\AM 28 P2 compounds used in data.batch.bin
Calibration Last Update 7/5/2022 11:38:54 AM

Instrument	Falco (069901)	**Data File**	p2 Cal 5-100ng.d
Type	Cal	**Sample**	p2 Cal 5-100ng
Acq. Method	AM 28 MDQ P2 061022.m	**Operator**	Sarah Collins
Sample Position	P2-D7	**Comment**	
Injection Volume	5		
Acq. Date-Time	7/1/2022 12:56:11 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
alpha-hydroxymidazolam	5.805	910261	2373.24	65.4	5542.46	403463	101.7419 ng/ml
Amitriptyline	5.706	249644	1269.90	113.4	692.43	129005	99.8510 ng/ml
Chlorpheniramine	5.135	5298349	269238.08	0.2	288.00	1378840	105.7783 ng/ml
Hydroxyzine	5.716	990348	5557.94	78.9	255058.16	417993	104.7812 ng/ml
Maprotiline	5.679	134408	865.05	231.6	640.45	129005	98.7078 ng/ml
Midazolam	5.779	342844	2274.15	93.1	1343.91	502049	102.8420 ng/ml
Nortriptyline	5.728	227312	1564.62	36.6	1653.05	84806	93.2273 ng/ml
Topiramate	4.986	35176	34496.04	44.3	19411.47	56163	94.6791 ng/ml

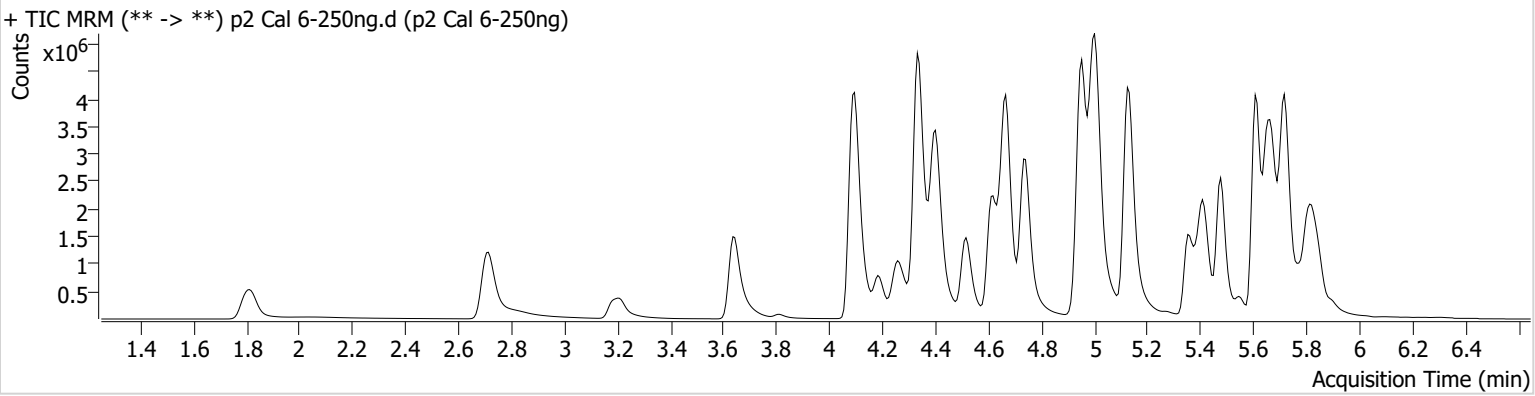
SC TS

AM #28 Multi-Drug Quant. Results

Batch results D:\MassHunter\Data\2022\AM 27-28\070122 AM 27 28 P1 P2 SC\QuantResults\AM 28 P2 compounds used in data.batch.bin
Calibration Last Update 7/5/2022 11:38:54 AM

Instrument	Falco (069901)	**Data File**	p2 Cal 6-250ng.d
Type	Cal	**Sample**	p2 Cal 6-250ng
Acq. Method	AM 28 MDQ P2 061022.m	**Operator**	Sarah Collins
Sample Position	P2-C7	**Comment**	
Injection Volume	5		
Acq. Date-Time	7/1/2022 1:06:55 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
alpha-hydroxymidazolam	5.805	1658098	6701.17	63.4	766.05	292269	256.6923 ng/ml
Amitriptyline	5.699	475694	1605.42	114.7	3635.74	100841	244.2517 ng/ml
Chlorpheniramine	5.128	10891708	75040.08	0.2	174.76	1133592	268.9181 ng/ml
Hydroxyzine	5.716	2067513	44322.99	80.0	1796.28	353999	260.3166 ng/ml
Maprotiline	5.679	216618	681.22	263.4	597.67	100841	204.2942 ng/ml
Midazolam	5.779	623634	3473.52	92.4	1421.06	381593	247.2450 ng/ml
Nortriptyline	5.728	387366	2410.28	37.2	1893.20	55595	241.2293 ng/ml
Topiramate	4.986	57158	48187.18	42.3	20461.83	35432	247.1931 ng/ml

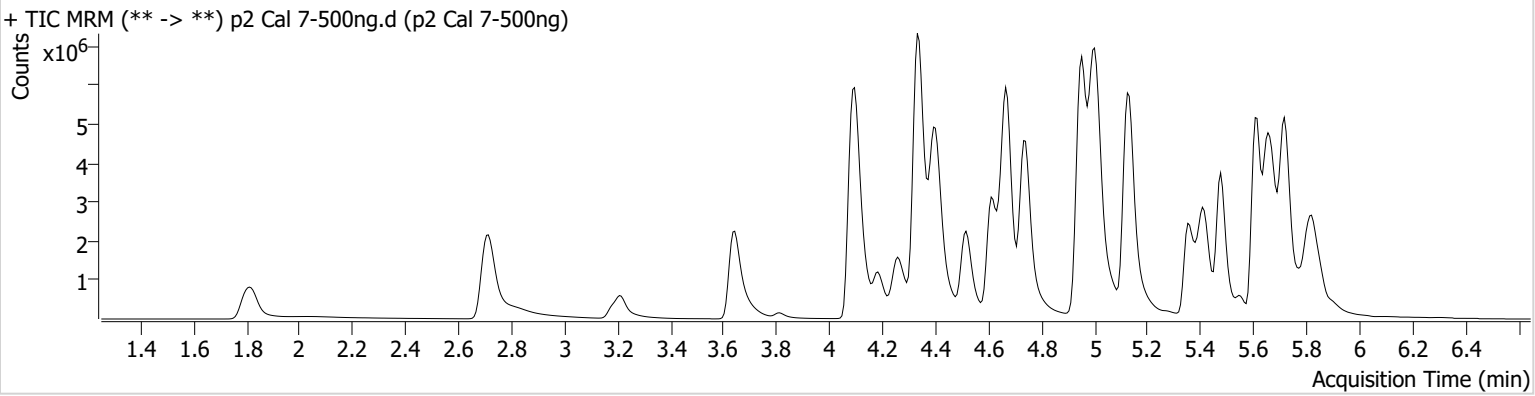
SC TS

AM #28 Multi-Drug Quant. Results

Batch results D:\MassHunter\Data\2022\AM 27-28\070122 AM 27 28 P1 P2 SC\QuantResults\AM 28 P2 compounds used in data.batch.bin
Calibration Last Update 7/5/2022 11:38:54 AM

Instrument	Falco (069901)	**Data File**	p2 Cal 7-500ng.d
Type	Cal	**Sample**	p2 Cal 7-500ng
Acq. Method	AM 28 MDQ P2 061022.m	**Operator**	Sarah Collins
Sample Position	P2-B7	**Comment**	
Injection Volume	5		
Acq. Date-Time	7/1/2022 1:17:38 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio		S/N	ISTD Resp.	Final Conc.
alpha-hydroxymidazolam	5.805	2376019	4246.27	64.3		2572.74	212746	505.8753 ng/ml
Amitriptyline	5.699	631639	1539.08	113.8		114.42	65850	497.2709 ng/ml
Chlorpheniramine	5.128	16826686	3286.91	0.2		408.44	923609	512.5524 ng/ml
Hydroxyzine	5.716	2990251	88986.50	78.3		24221.31	265137	503.9695 ng/ml
Maprotiline	5.679	253597	1252.17	287.9	High	7352.48	65850	366.8439 ng/ml
Midazolam	5.779	963448	4969.80	93.9		2864.40	308348	473.4348 ng/ml
Nortriptyline	5.728	476184	5692.58	36.9		5582.79	32676	503.7785 ng/ml
Topiramate	4.986	73764	168420.62	43.5		25240.46	23906	474.7604 ng/ml

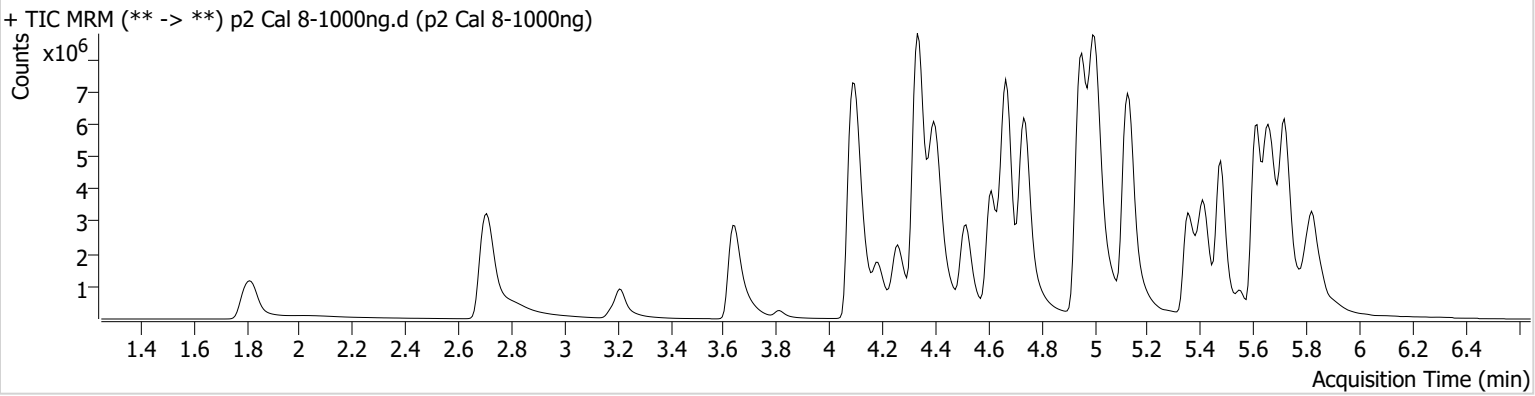
SC TS

AM #28 Multi-Drug Quant. Results

Batch results D:\MassHunter\Data\2022\AM 27-28\070122 AM 27 28 P1 P2 SC\QuantResults\AM 28 P2 compounds used in data.batch.bin
Calibration Last Update 7/5/2022 11:38:54 AM

Instrument	Falco (069901)	**Data File**	p2 Cal 8-1000ng.d
Type	Cal	**Sample**	p2 Cal 8-1000ng
Acq. Method	AM 28 MDQ P2 061022.m	**Operator**	Sarah Collins
Sample Position	P2-A7	**Comment**	
Injection Volume	5		
Acq. Date-Time	7/1/2022 1:28:21 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio		S/N	ISTD Resp.	Final Conc.
alpha-hydroxymidazolam	5.812	2794016	293.96	65.7		6781.26	128558	984.9672 ng/ml
Amitriptyline	5.699	844827	1845.28	110.9		4780.52	43658	1003.7880 ng/ml
Chlorpheniramine	5.128	21804216	224881.83	0.2		2267.26	638428	963.4333 ng/ml
Hydroxyzine	5.716	3964097	30606.06	77.6		67892.16	181378	977.9196 ng/ml
Maprotiline	5.679	312375	6117.27	308.2	High	2005.92	43658	682.1930 ng/ml
Midazolam	5.779	1290742	2292.40	92.2		4299.36	213656	916.1252 ng/ml
Nortriptyline	5.728	626570	28757.24	35.7		1904.82	21365	1013.1161 ng/ml
Topiramate	4.986	92481	56847.01	43.9		15638.05	13847	1030.1088 ng/ml