REVIEWED
By Celena Shrum at 2:57 pm, Nov 20, 2024

11/19/2024

Worklist: 6975

LAB_CASE	ITEM	ITEM_TYPE	DESCRIPTION
C2024-2125	1	BCK	AM 27 Blood THC Quant by LC-QQQ
C2024-2138	2	BCK	AM 27 Blood THC Quant by LC-QQQ
C2024-2178	1	BCK	AM 27 Blood THC Quant by LC-QQQ
C2024-2189	1	BCK	AM 27 Blood THC Quant by LC-QQQ
C2024-2192	1	BCK	AM 27 Blood THC Quant by LC-QQQ
C2024-2193	1	BCK	AM 27 Blood THC Quant by LC-QQQ
C2024-2195	1	BCK	AM 27 Blood THC Quant by LC-QQQ
C2024-2210	1	BCK	AM 27 Blood THC Quant by LC-QQQ
C2024-2229	1	BCK	AM 27 Blood THC Quant by LC-QQQ
C2024-2232	1	BCK	AM 27 Blood THC Quant by LC-QQQ

AM# 27: Quantitation of THC and Metabolites in Blood and Urine by LC-MS/MS

Extraction Date: 11/19/24
Plate lot#: 240919
Mobile phase A: 0.1% Formic Acid in LCMS Water
Blank Blood Lot: 24C52044
Column: UCT Selectra DA 100 x 2.1mm 3um

Analyst: Anne Nord
Plate Retest Date: 3/19/2025
Mobile phase B: 0.1% Formic acid in Acetonitrile
Blank Urine Lot: Blood only run
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.

Analytic:

☒ 1. Remove standards, plate, controls, and samples from cold storage. Allow to reach room temperature.
☒ 2. Using a calibrated pipette, pipette 1000µL blood or 1000µL urine in wells of analytical (standards) plate. **Pipette ID: K52558G**
☐ 3. Urine hydrolysis add **100 ul BG turbo, and 200 ul BG turbo buffer** to the urine samples in wells of the analytical plate.
☒ 4. Add **500µL of 0.1% formic acid in water** in the wells of the analytical plate.
☒ 5. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
☒ 6. Transfer **700-800µL of blood+acid or urine+acid** mixture to corresponding wells of SLE+ plate. Amount transferred: **750 µL**
☒ 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 **2.25mL MTBE. (*Add in 3 increments of 750uL)***
☒ 10. Wait 5 minutes.
☒ 11. Apply positive pressure for approx. 15 seconds. ***(10-15 PSI- Selector to the left).***
☒ 12. Add **2.25mL Hexane. (*Add in 3 increments of 750uL)***
☒ 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 75401 and evaporate to dryness at approx. 35°C.
☒ 16. Reconstitute in **100µL 100% MeOH** and heat seal plate with foil. Place in autosampler and run worklist.

Post-Analytic

☒ 1. Create batch and process data.
☒ 2. Make any necessary integration changes, Curve weighting of Linear 1/x with r^2 values ≥0.98 for each analyte
☒ 3. RT +/- 3% or 0.100 min, whichever is greater, +/- 20% Accuracy for greater than (+/- 30% for 10ng/ml or less). Ion ratios must be within +/- 20% of the averaged calibrators
☒ 4. Did all QCs pass for each analyte? (if not, describe in comments section)
☒ 5. Enter QCs into control charting.
☒ 6. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS: *C2024-2193-1 did not inject, it was reconstituted and injected 11/19/24 along with a positive blood control.*

	1	2	3	4	5	6
a	cal 1		2193-1			
b	cal 2	Internal control blood high	2195-1			
c	cal 3	negative blood	2210-1			
d	cal 4	2125-1	2229-1			
e	cal 5	2138-2	2232-1			
f	cal 6	2178-1				
g	cal 7	2189-1				
h	Internal control (blood)	2192-1				

Plate position 3

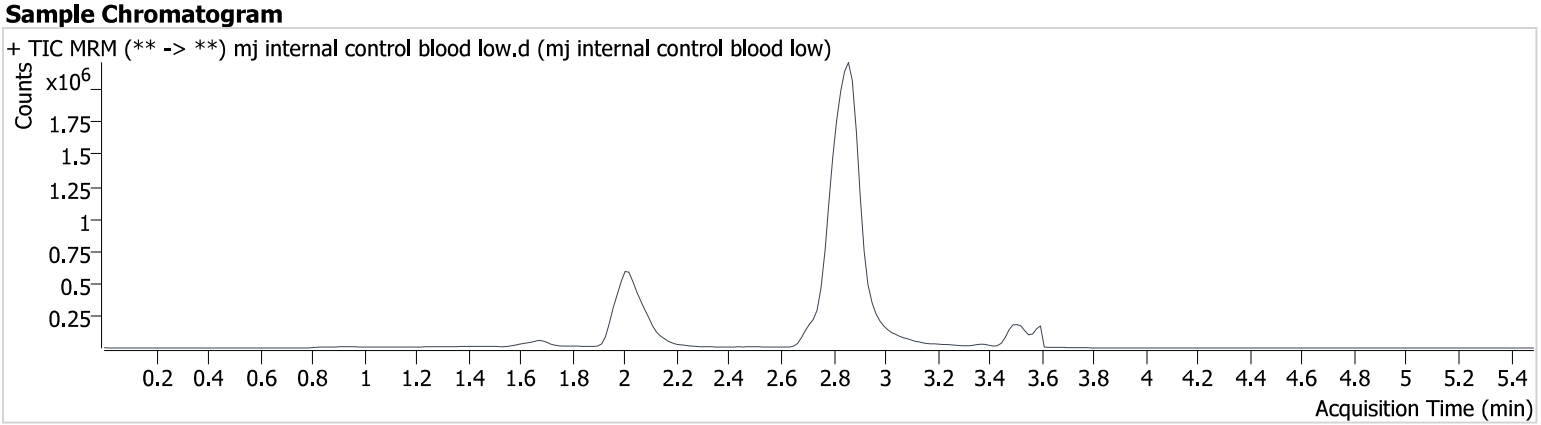
c2024-____-_

AM #27 Cannabinoids

Batch results D:\MassHunter\Data\2024\am 27-28\111924\QuantResults\am 27.batch.bin
Calibration Last Update 11/20/2024 11:28:27 AM

Instrument	69679	**Data File**	mj internal control blood low.d
Type	QC	**Sample**	mj internal control blood low
Acq. Method	thc quant 50 50.m	**Operator**	Anne Nord
Sample Position	P3-H1	**Comment**	Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods
Injection Volume	10		
Acq. Date-Time	11/19/2024 9:03:19 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-OH	2.006	34707	∞	821.78	199.8	2530805	4.567 ng/ml
THC-COOH	2.077	66365	298.4	284.13	254904.9	983885	14.399 ng/ml
THC	3.528	82104	∞	27.86	∞	633135	4.541 ng/ml

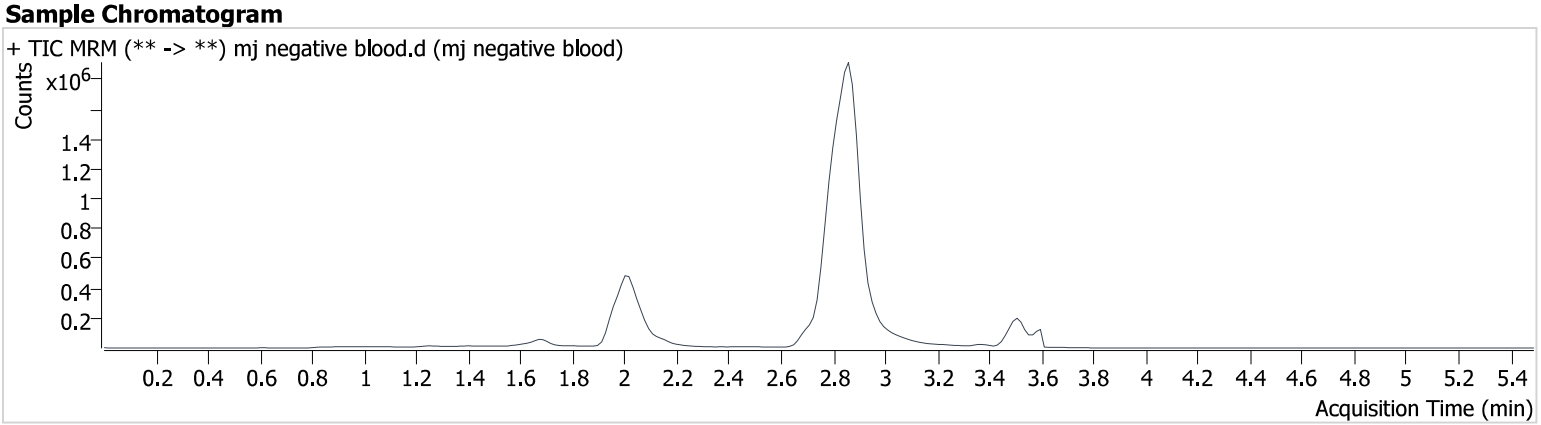
AM #27 Cannabinoids

Batch results D:\MassHunter\Data\2024\am 27-28\111924\QuantResults\am 27.batch.bin
Calibration Last Update 11/20/2024 11:28:27 AM

Instrument	69679	**Data File**	mj negative blood.d
Type	Sample	**Sample**	mj negative blood
Acq. Method	thc quant 50 50.m	**Operator**	Anne Nord
Sample Position	P3-C2	**Comment**	
Injection Volume	10		
Acq. Date-Time	11/19/2024 9:09:53 PM		
Sample Info.			

Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods

Sample Chromatogram



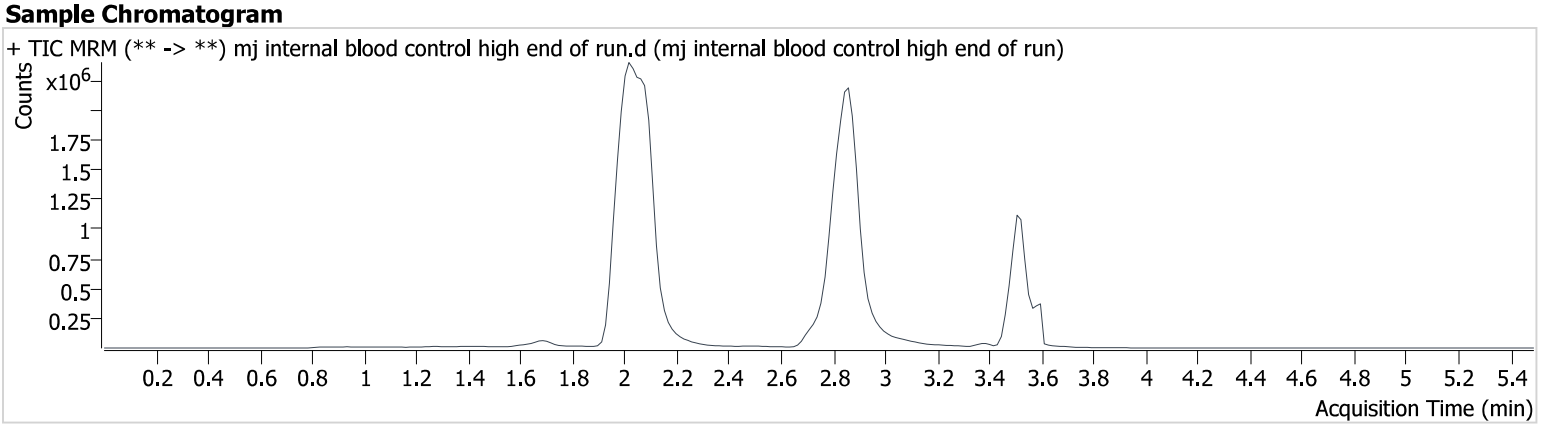
AM #27 Cannabinoids

Batch results D:\MassHunter\Data\2024\am 27-28\111924\QuantResults\am 27.batch.bin
Calibration Last Update 11/20/2024 11:28:27 AM

Instrument	69679	**Data File**	mj internal blood control high end of run.d
Type	QC	**Sample**	mj internal blood control high end of run
Acq. Method	thc quant 50 50.m	**Operator**	Anne Nord
Sample Position	P3-B2	**Comment**	
Injection Volume	10		
Acq. Date-Time	11/19/2024 11:35:05 PM		
Sample Info.			

Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods

Sample Chromatogram



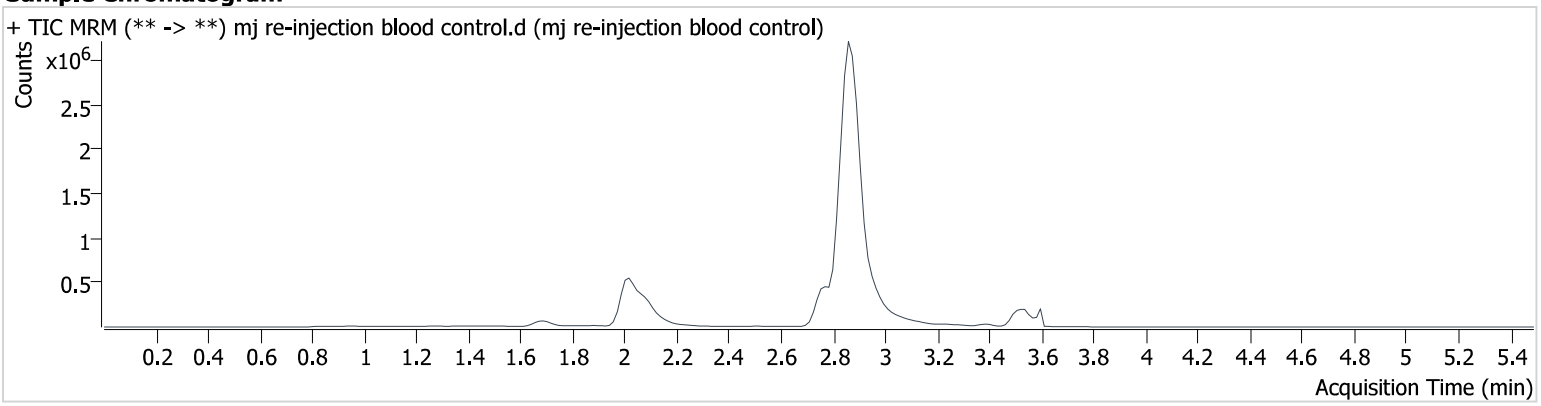
Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-OH	2.006	944716	∞	835.54	∞	2713007	105.795 ng/ml
THC-COOH	2.077	1243151	1654.9	267.51	4238196.7	909493	264.192 ng/ml
THC	3.528	2890955	∞	26.91	12421.3	909176	102.423 ng/ml

AM #27 Cannabinoids

Batch results D:\MassHunter\Data\2024\am 27-28\111924\QuantResults\am 27.batch.bin
Calibration Last Update 11/20/2024 11:28:27 AM

Instrument	69679	**Data File**	mj re-injection blood control.d
Type	QC	**Sample**	mj re-injection blood control
Acq. Method	thc quant 50 50.m	**Operator**	Anne Nord
Sample Position	P3-H1	**Comment**	Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods
Injection Volume	10		
Acq. Date-Time	11/20/2024 11:21:08 AM		
Sample Info.			

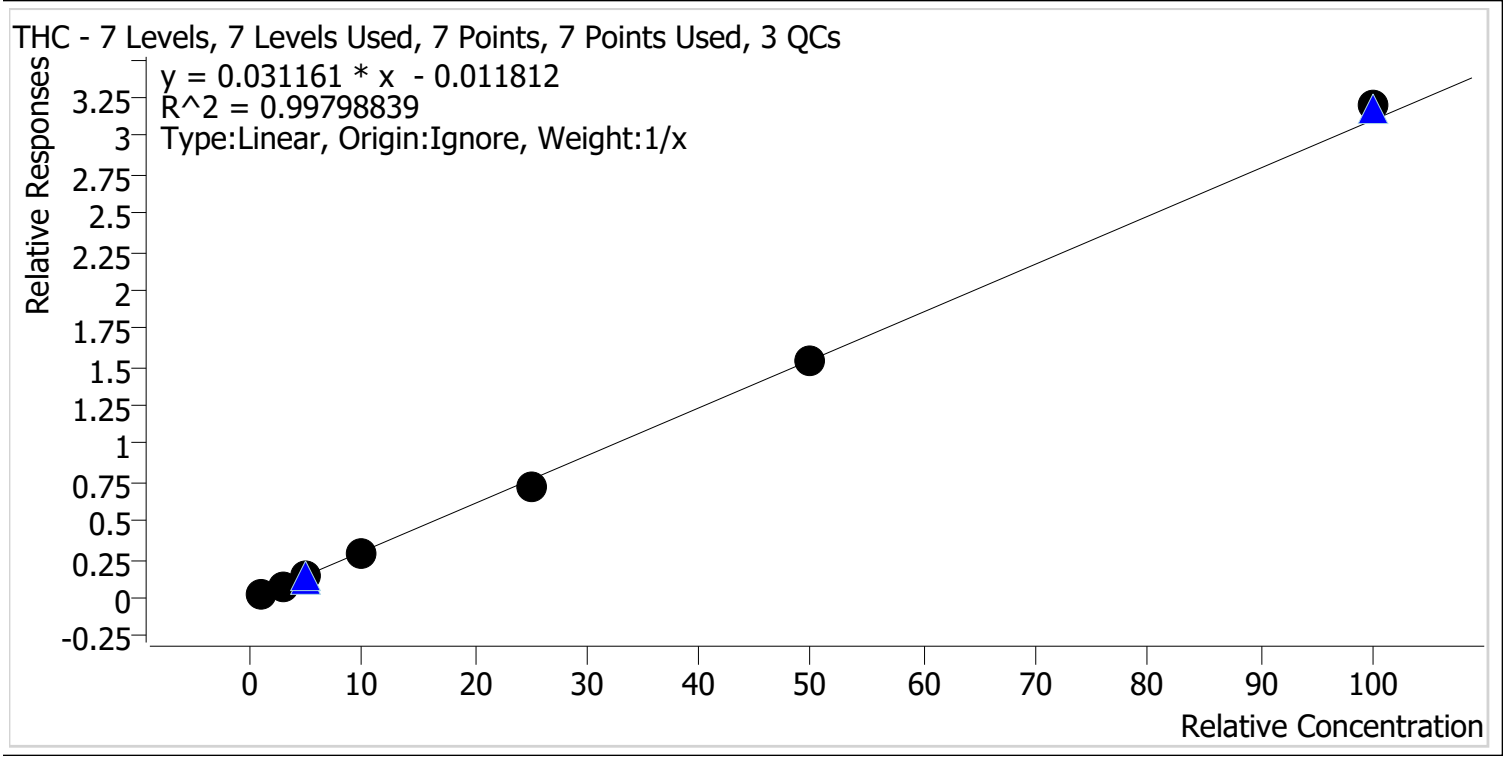
Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-OH	2.021	30384	2399.3	742.86	∞	1884121	5.297 ng/ml
THC-COOH	2.092	63601	99.5	275.32	1409.7	929187	14.591 ng/ml
THC	3.543	86167	∞	26.91	916.9	623103	4.817 ng/ml

Compound Calibration Report

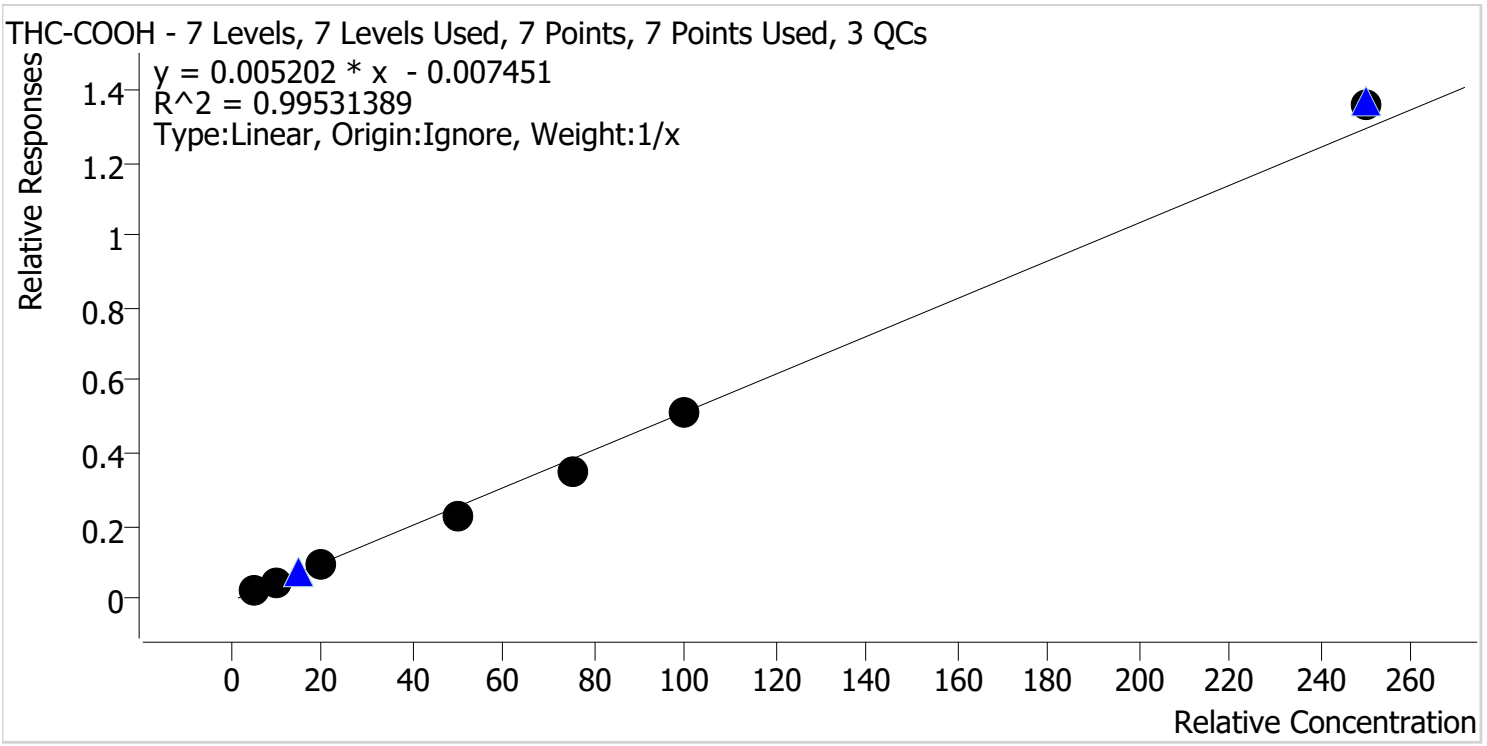
Batch results	D:\MassHunter\Data\2024\am 27-28\111924\QuantResults\am 27.batch.bin
Last Cal. Update	11/20/2024 11:28 AM
Analyst Name	ISP\datastor
Analyte	THC
Internal Standard	THC-d3



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
mj cal 1	1	✔	1.0	1.2	122.1
mj cal 2	2	✔	3.0	2.9	96.9
mj cal 3	3	✔	5.0	4.6	92.4
mj cal 4	4	✔	10.0	9.3	93.0
mj cal 5	5	✔	25.0	23.3	93.4
mj cal 6	6	✔	50.0	49.6	99.2
mj cal 7	7	✔	100.0	103.0	103.0

Compound Calibration Report

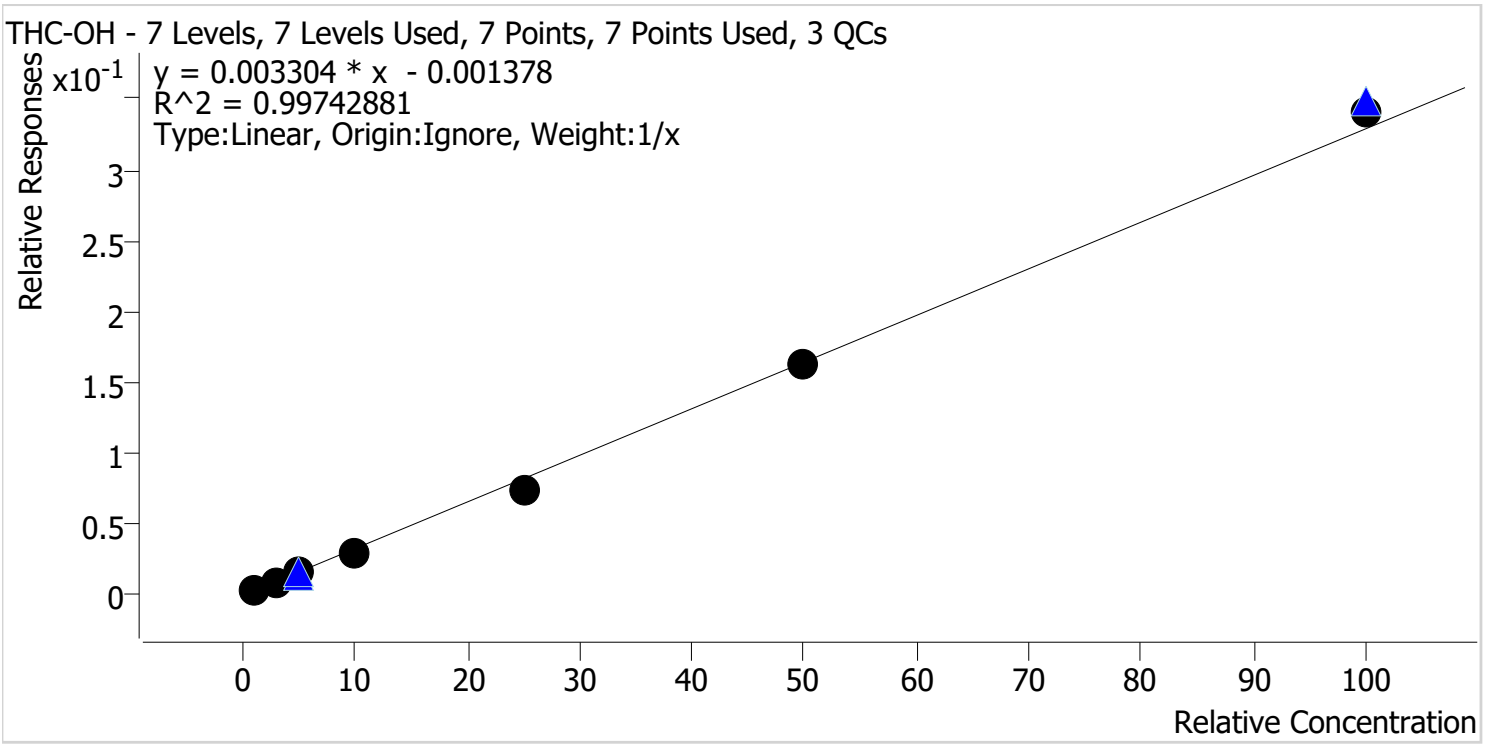
Batch results	D:\MassHunter\Data\2024\am 27-28\111924\QuantResults\am 27.batch.bin
Last Cal. Update	11/20/2024 11:28 AM
Analyst Name	ISP\datastor
Analyte	THC-COOH
Internal Standard	THC-COOH-d9



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
mj cal 1	1	✔	5.0	5.9	117.8
mj cal 2	2	✔	10.0	9.9	98.8
mj cal 3	3	✔	20.0	19.6	97.8
mj cal 4	4	✔	50.0	45.4	90.7
mj cal 5	5	✔	75.0	67.9	90.5
mj cal 6	6	✔	100.0	99.7	99.7
mj cal 7	7	✔	250.0	261.7	104.7

Compound Calibration Report

Batch results	D:\MassHunter\Data\2024\am 27-28\111924\QuantResults\am 27.batch.bin
Last Cal. Update	11/20/2024 11:28 AM
Analyst Name	ISP\datastor
Analyte	THC-OH
Internal Standard	THC-OH-d3



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
mj cal 1	1	✔	1.0	1.2	118.6
mj cal 2	2	✔	3.0	2.9	95.9
mj cal 3	3	✔	5.0	5.0	99.7
mj cal 4	4	✔	10.0	9.2	92.4
mj cal 5	5	✔	25.0	22.7	90.6
mj cal 6	6	✔	50.0	49.7	99.5
mj cal 7	7	✔	100.0	103.3	103.3

AM #27 Cannabinoids

Batch results D:\MassHunter\Data\2024\am 27-28\111924\QuantResults\am 27.batch.bin
Calibration Last Update 11/20/2024 11:28:27 AM

Instrument	69679	**Data File**	mj cal 1.d
Type	Cal	**Sample**	mj cal 1
Acq. Method	thc quant 50 50.m	**Operator**	Anne Nord
Sample Position	P3-A1	**Comment**	
Injection Volume	10		
Acq. Date-Time	11/19/2024 8:16:59 PM		
Sample Info.			

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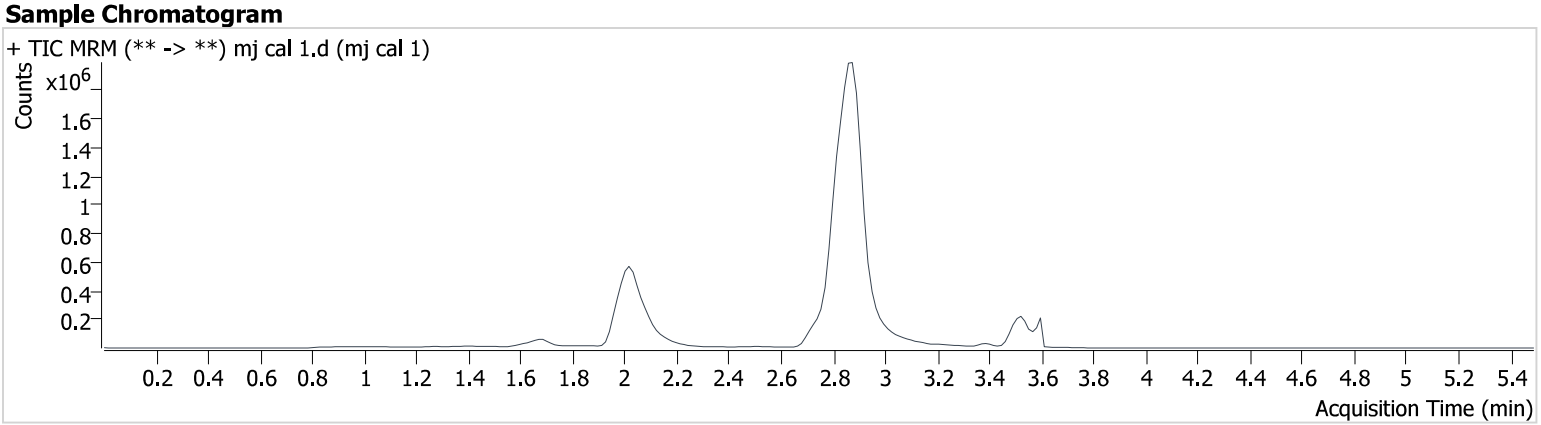
Sample Chromatogram



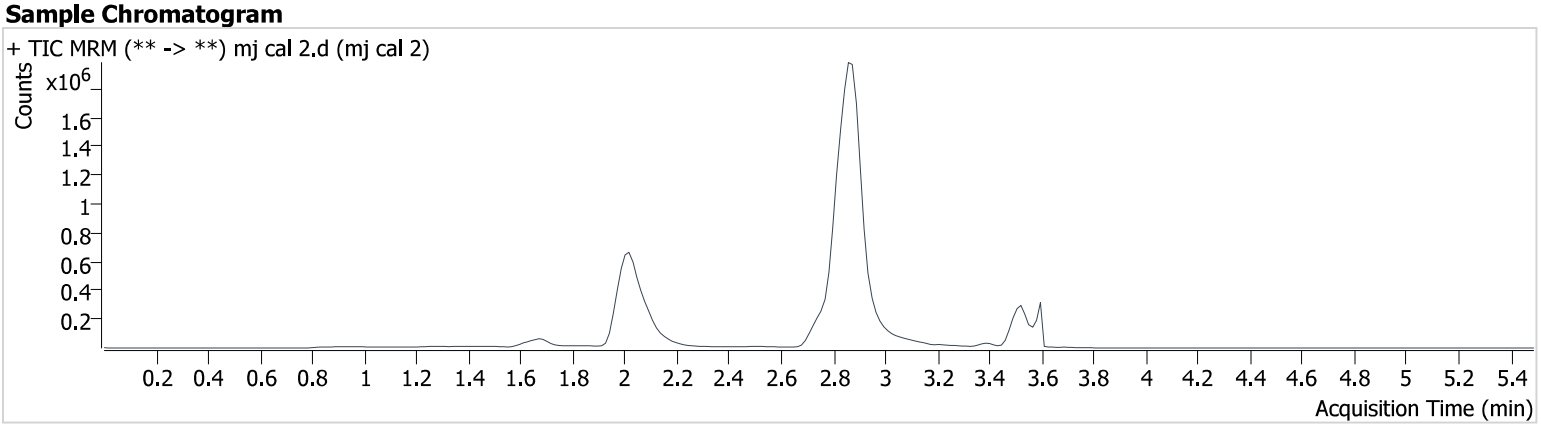
Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.	
THC-OH	2.021	6974	∞	692.07	∞	2746062	1.186 ng/ml	Low
THC-COOH	2.092	23905	24996.9	283.02	501.7	1031349	5.888 ng/ml	
THC	3.528	19140	∞	27.63	∞	729188	1.221 ng/ml	

AM #27 Cannabinoids

Batch results D:\MassHunter\Data\2024\am 27-28\111924\QuantResults\am 27.batch.bin
Calibration Last Update 11/20/2024 11:28:27 AM

Instrument	69679	**Data File**	mj cal 2.d
Type	Cal	**Sample**	mj cal 2
Acq. Method	thc quant 50 50.m	**Operator**	Anne Nord
Sample Position	P3-B1	**Comment**	Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods
Injection Volume	10		
Acq. Date-Time	11/19/2024 8:23:43 PM		
Sample Info.			

Sample Chromatogram



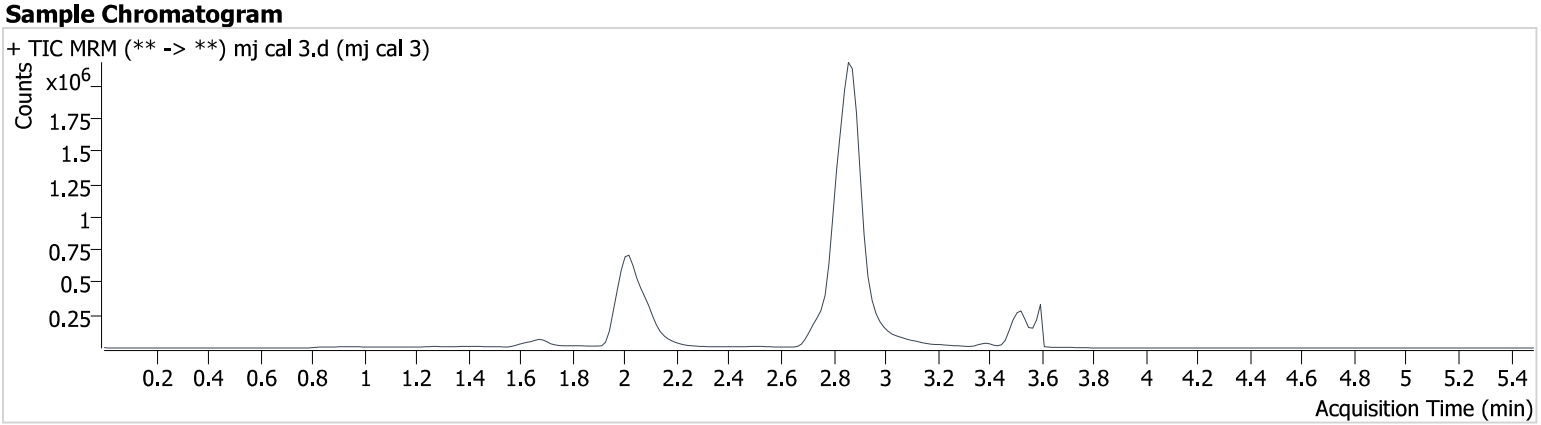
Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.	
THC-OH	2.021	23096	∞	773.89	∞	2842157	2.876 ng/ml	Low
THC-COOH	2.092	44115	195.4	279.88	4231.4	1003647	9.882 ng/ml	
THC	3.528	68410	∞	26.54	484126 549224 0.5	868901	2.906 ng/ml	

AM #27 Cannabinoids

Batch results D:\MassHunter\Data\2024\am 27-28\111924\QuantResults\am 27.batch.bin
Calibration Last Update 11/20/2024 11:28:27 AM

Instrument	69679	**Data File**	mj cal 3.d
Type	Cal	**Sample**	mj cal 3
Acq. Method	thc quant 50 50.m	**Operator**	Anne Nord
Sample Position	P3-C1	**Comment**	Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods
Injection Volume	10		
Acq. Date-Time	11/19/2024 8:30:20 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-OH	2.021	43546	∞	728.66	∞	2885239	4.984 ng/ml
THC-COOH	2.077	94050	274839.0	272.85	401.6	997745	19.553 ng/ml
THC	3.528	105400	∞	27.64	374.5	797501	4.620 ng/ml

AM #27 Cannabinoids

Batch results D:\MassHunter\Data\2024\am 27-28\111924\QuantResults\am 27.batch.bin
Calibration Last Update 11/20/2024 11:28:27 AM

Instrument	69679	**Data File**	mj cal 4.d
Type	Cal	**Sample**	mj cal 4
Acq. Method	thc quant 50 50.m	**Operator**	Anne Nord
Sample Position	P3-D1	**Comment**	
Injection Volume	10		
Acq. Date-Time	11/19/2024 8:36:56 PM		
Sample Info.			

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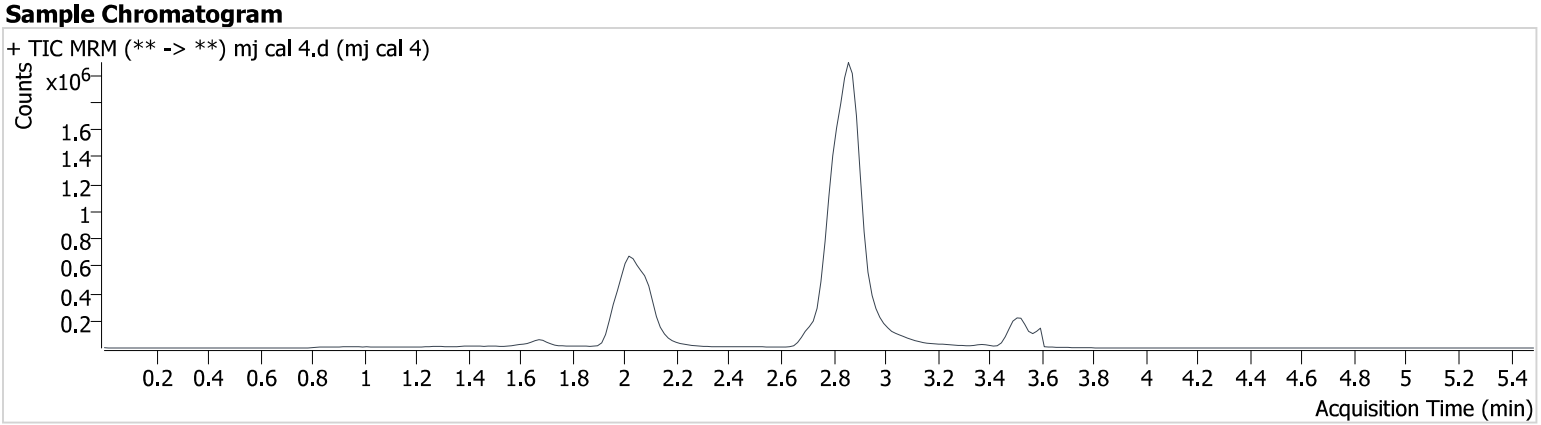
Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-OH	2.006	71403	1241.6	796.33	2304.3	2447936	9.244 ng/ml
THC-COOH	2.077	223272	230801.5	272.41	102105 5.8	977152	45.357 ng/ml
THC	3.528	197010	∞	24.62	622.8	708702	9.300 ng/ml

AM #27 Cannabinoids

Batch results D:\MassHunter\Data\2024\am 27-28\111924\QuantResults\am 27.batch.bin
Calibration Last Update 11/20/2024 11:28:27 AM

Instrument	69679	**Data File**	mj cal 5.d
Type	Cal	**Sample**	mj cal 5
Acq. Method	thc quant 50 50.m	**Operator**	Anne Nord
Sample Position	P3-E1	**Comment**	
Injection Volume	10		
Acq. Date-Time	11/19/2024 8:43:32 PM		
Sample Info.			

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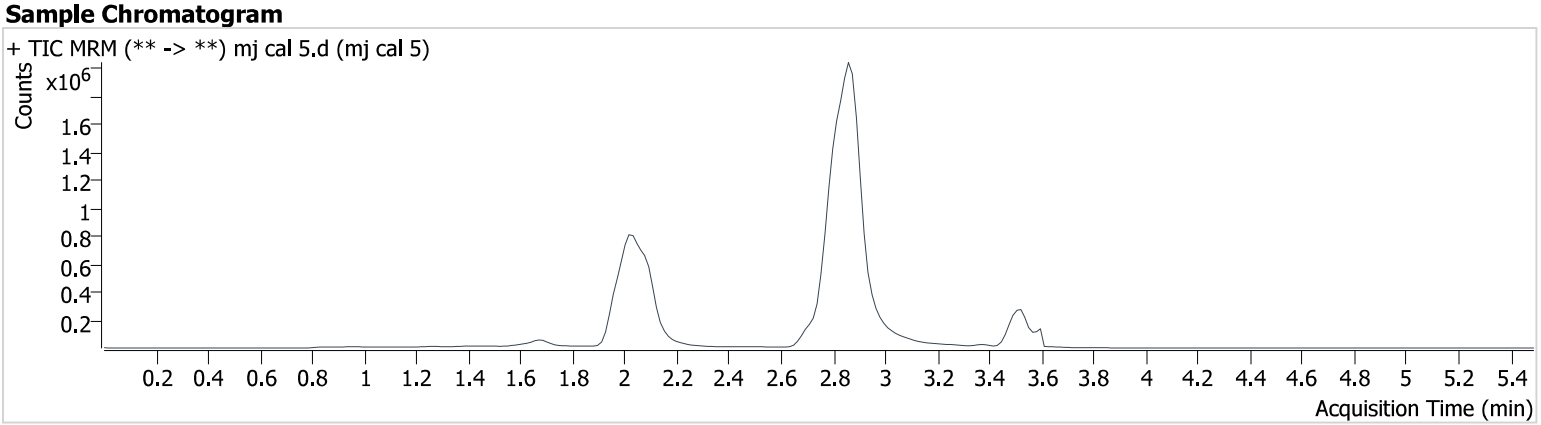
Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-OH	2.021	163076	∞	860.49	∞	2218533	22.661 ng/ml
THC-COOH	2.077	311962	554843.3	277.31	2321.3	902326	67.894 ng/ml
THC	3.528	468239	∞	25.54	502.6	654223	23.348 ng/ml

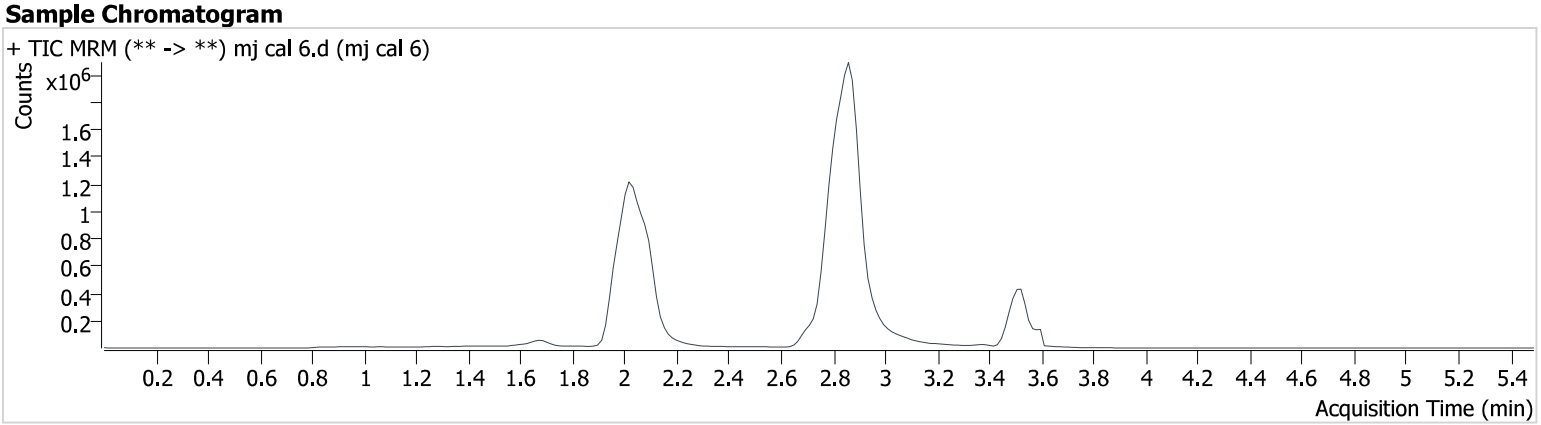
AM #27 Cannabinoids

Batch results D:\MassHunter\Data\2024\am 27-28\111924\QuantResults\am 27.batch.bin
Calibration Last Update 11/20/2024 11:28:27 AM

Instrument	69679	**Data File**	mj cal 6.d
Type	Cal	**Sample**	mj cal 6
Acq. Method	thc quant 50 50.m	**Operator**	Anne Nord
Sample Position	P3-F1	**Comment**	
Injection Volume	10		
Acq. Date-Time	11/19/2024 8:50:09 PM		
Sample Info.			

Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods

Sample Chromatogram



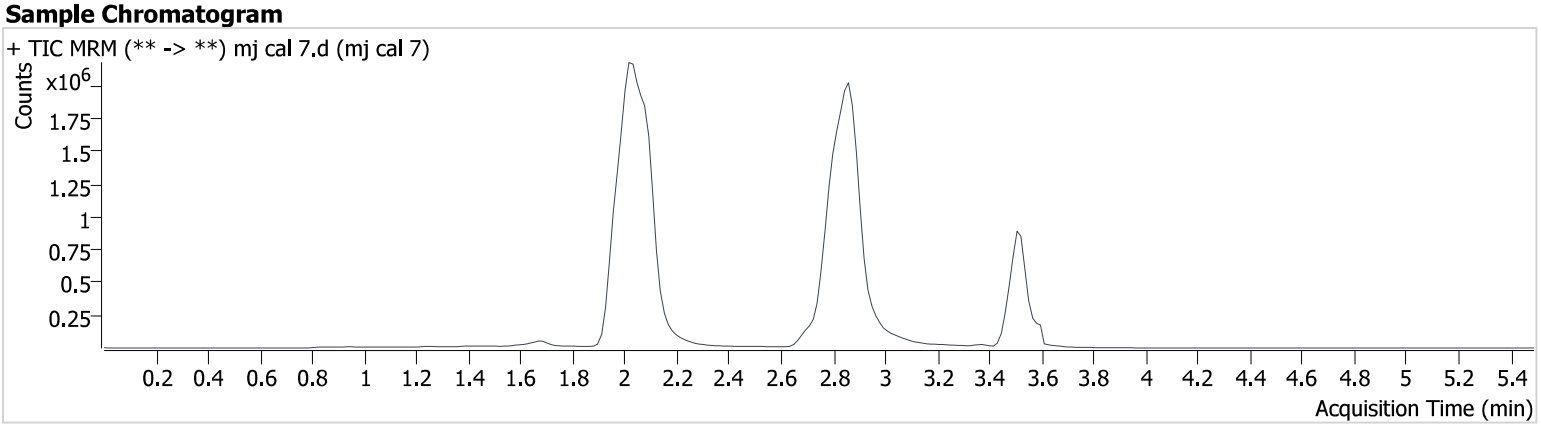
Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-OH	2.006	388962	∞	807.32	∞	2386262	49.744 ng/ml
THC-COOH	2.077	463491	6108.0	269.42	1442074.4	906343	99.739 ng/ml
THC	3.528	1053934	∞	25.72	∞	687273	49.592 ng/ml

AM #27 Cannabinoids

Batch results D:\MassHunter\Data\2024\am 27-28\111924\QuantResults\am 27.batch.bin
Calibration Last Update 11/20/2024 11:28:27 AM

Instrument	69679	**Data File**	mj cal 7.d
Type	Cal	**Sample**	mj cal 7
Acq. Method	thc quant 50 50.m	**Operator**	Anne Nord
Sample Position	P3-G1	**Comment**	Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods
Injection Volume	10		
Acq. Date-Time	11/19/2024 8:56:45 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-OH	2.006	874067	57225.9	786.72	∞	2570886	103.304 ng/ml
THC-COOH	2.077	1123149	5813.1	267.32	2643115.2	829608	261.687 ng/ml
THC	3.513	2538105	∞	27.13	12441.3	793627	103.012 ng/ml