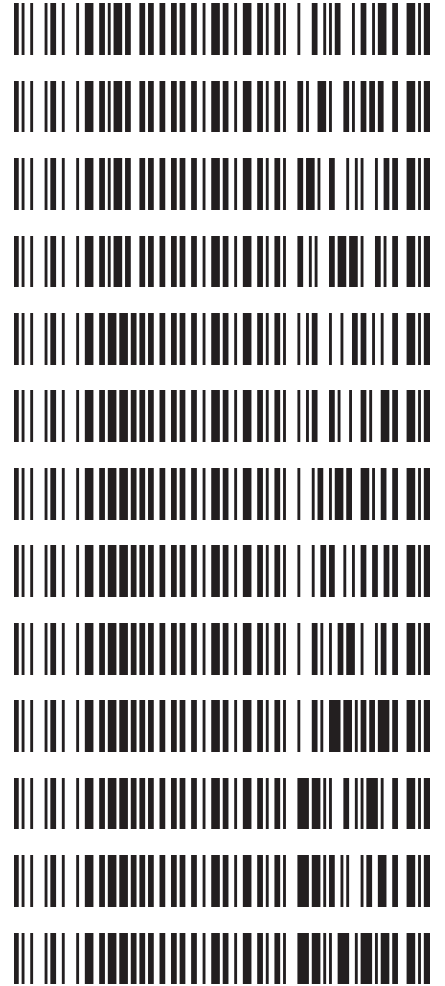


Worklist: 5451

<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>
M2021-4894	2	BCK	AM 27 Blood THC Quant by LC-QQQ
M2021-5027	1	BCK	AM 27 Blood THC Quant by LC-QQQ
M2021-5050	1	BCK	AM 27 Blood THC Quant by LC-QQQ
M2021-5307	2	BCK	AM 27 Blood THC Quant by LC-QQQ
P2021-3867	1	BCK	AM 27 Blood THC Quant by LC-QQQ
P2021-3869	1	BCK	AM 27 Blood THC Quant by LC-QQQ
P2021-3900	1	BCK	AM 27 Blood THC Quant by LC-QQQ
P2021-3912	1	BCK	AM 27 Blood THC Quant by LC-QQQ
P2021-3937	1	BCK	AM 27 Blood THC Quant by LC-QQQ
P2021-3939	1	BCK	AM 27 Blood THC Quant by LC-QQQ
P2021-3975	1	BCK	AM 27 Blood THC Quant by LC-QQQ
P2021-3976	1	BCK	AM 27 Blood THC Quant by LC-QQQ
P2021-3978	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: 12/09/2021

Analyst: Celena Shrum

Plate lot#: IDP-108-3-211018

Plate Retest Date: 04/18/2022

Mobile phase A: 0.1% Formic Acid in LCMS Water

Mobile phase B: 0.1% Formic acid in Acetonitrile

Blank Blood Lot: Lampire 20L20725

Column: UCT Selectra DA 100 x 2.1mm 3um

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.

Analytic:

- 1. Remove standards, plate, controls, and samples from cold storage. Allow to reach room temperature.
- 2. Using a calibrated pipette, add **1000µl blood and urine (if applicable) (calibrated pipette)** into the appropriate wells of analytical (standards) plate. **Pipette ID: #42**
- 3. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- 4. Pipette **500µL 0.1% formic acid in water blood sample** of analytical plate.
- 5. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- 6. Transfer **800µL of blood+acid or urine+acid** 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 **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 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 r² 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. Case sample response for THC 1ng/mL and OH-THC 3ng/mL (quantitative), Carboxy-THC: 5ng/mL (qualitative only) will be reported. Samples with a THC or OH-THC response over 50 ng/mL will be reported out as greater than 50 ng/mL.
- 5. Did all QCs pass for each analyte? (if not, describe in comments section)
- 6. Enter QCs into control charting.
- 7. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS: The run stopped due to a pressure issue. The issue was fixed and the run was restarted with no further issues. THC-OH not evaluated due to ratio issues.

	1	2	3	4	5	6
a	cal 1ng	QC 2	P2021-3900-1			
b	cal 3 ng	NEG Blood	P2021-3912-1			
c	cal 5 ng	M2021-4894-2	P2021-3937-1			
d	cal 10ng	M2021-5027-1	P2021-3939-1			
e	cal 25 ng	M2021-5050-1	P2021-3975-1			
f	cal 50 ng	M2021-5307-2	P2021-3976-1			
g	cal 100 ng	P2021-3867-1	P2021-3978-1			
h	QC 1	P2021-3869-1				

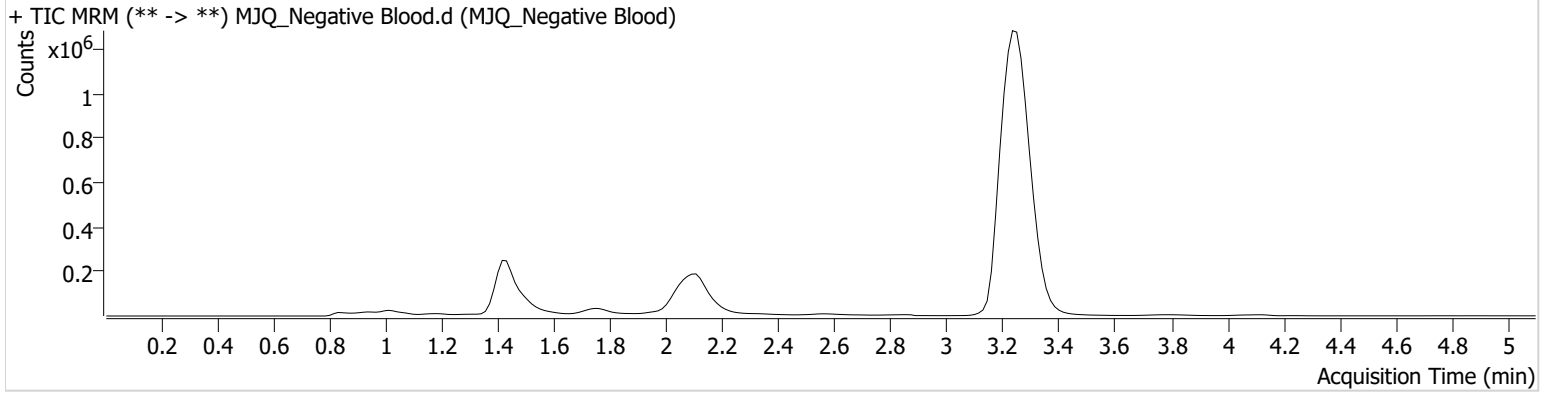
AM #27 Cannabinoid Quant. Results



Batch results D:\MassHunter\Data\2021\AM 27-28\120921 AM 27 28 CS\QuantResults\AM 27 THC-OH removed.batch.bin
Calibration Last Update 12/13/2021 11:51:39 AM

Instrument	Falco (069901)	Data File	MJQ_Negative Blood.d
Type	Sample	Sample	MJQ_Negative Blood
Acq. Method	AM 27 THCQ.m	Operator	Celena Shrum
Sample Position	P1-B2	Comment	
Injection Volume	10		
Acq. Date-Time	12/10/2021 2:39:27 AM		
Sample Info.			

Sample Chromatogram



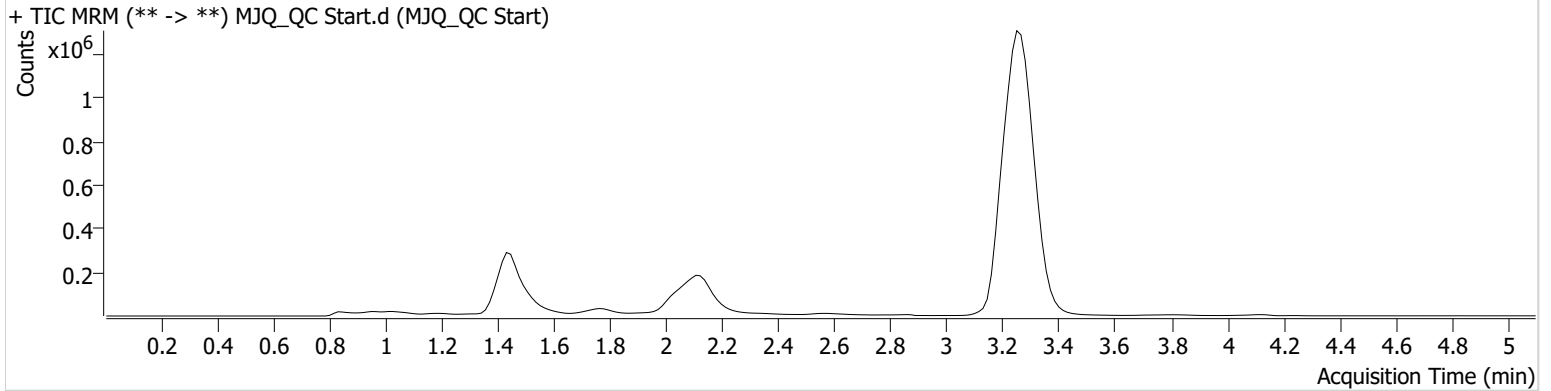
AM #27 Cannabinoid Quant. Results



Batch results D:\MassHunter\Data\2021\AM 27-28\120921 AM 27 28 CS\QuantResults\AM 27 THC-OH removed.batch.bin
Calibration Last Update 12/13/2021 11:51:39 AM

Instrument	Falco (069901)	Data File	MJQ_QC Start.d
Type	Sample	Sample	MJQ_QC Start
Acq. Method	AM 27 THCQ.m	Operator	Celena Shrum
Sample Position	P1-H1	Comment	
Injection Volume	10		
Acq. Date-Time	12/10/2021 2:24:11 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-COOH	1.474	75755	82.44	75.0	723.58	228073	14.9638 ng/ml
THC	3.270	405875	∞	25.8	∞	9522079	4.7165 ng/ml

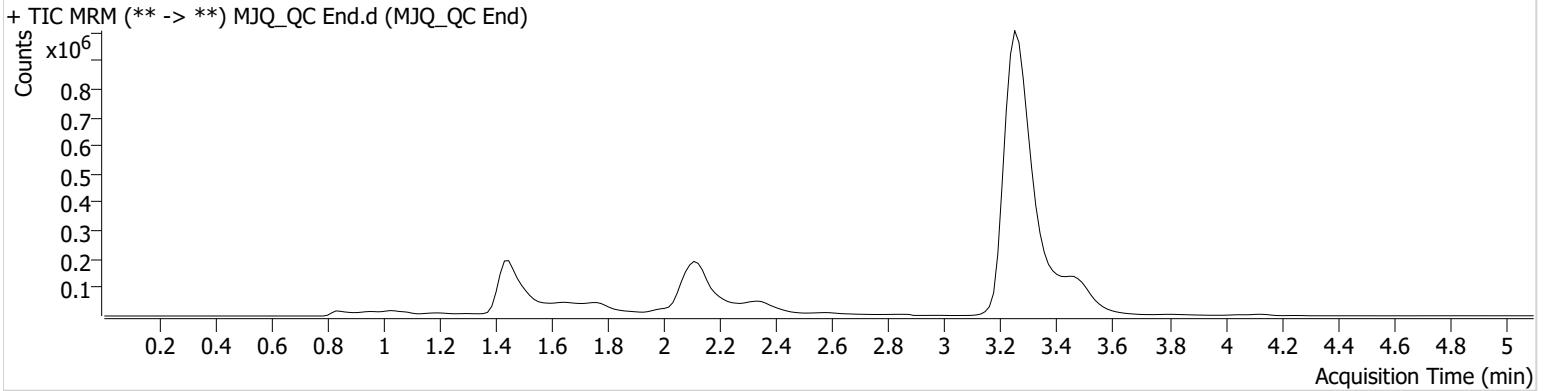
AM #27 Cannabinoid Quant. Results



Batch results D:\MassHunter\Data\2021\AM 27-28\120921 AM 27 28 CS\QuantResults\AM 27 THC-OH removed.batch.bin
Calibration Last Update 12/13/2021 11:51:39 AM

Instrument	Falco (069901)	Data File	MJQ_QC End.d
Type	Sample	Sample	MJQ_QC End
Acq. Method	AM 27 THCQ.m	Operator	Celena Shrum
Sample Position	P1-A2	Comment	
Injection Volume	10		
Acq. Date-Time	12/10/2021 11:37:13 AM		
Sample Info.			

Sample Chromatogram

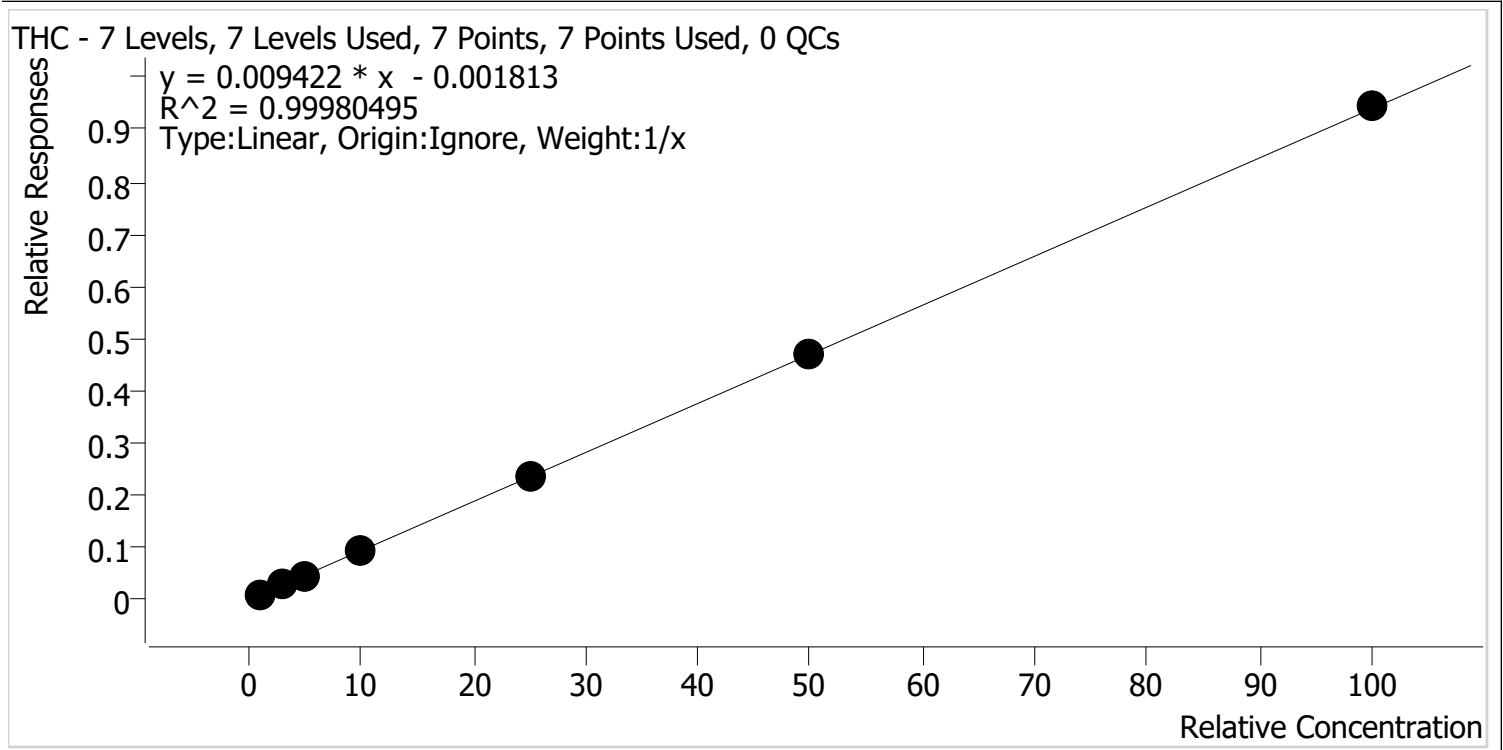


Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-COOH	1.474	46741	∞	66.7	231.52	159173	13.4868 ng/ml
THC	3.270	266776	1180.20	26.0	182.31	6643116	4.4547 ng/ml



AM #27 Cannabinoids Quant. Calibration Curve Report

Batch results D:\MassHunter\Data\2021\AM 27-28\120921 AM 27 28 CS\QuantResults\AM 27 THC-OH removed.batch.bin
Last Cal. Update 12/13/2021 11:51 AM
Analyst Name ISP\datastor
Analyte THC **Internal Standard** THC-D3

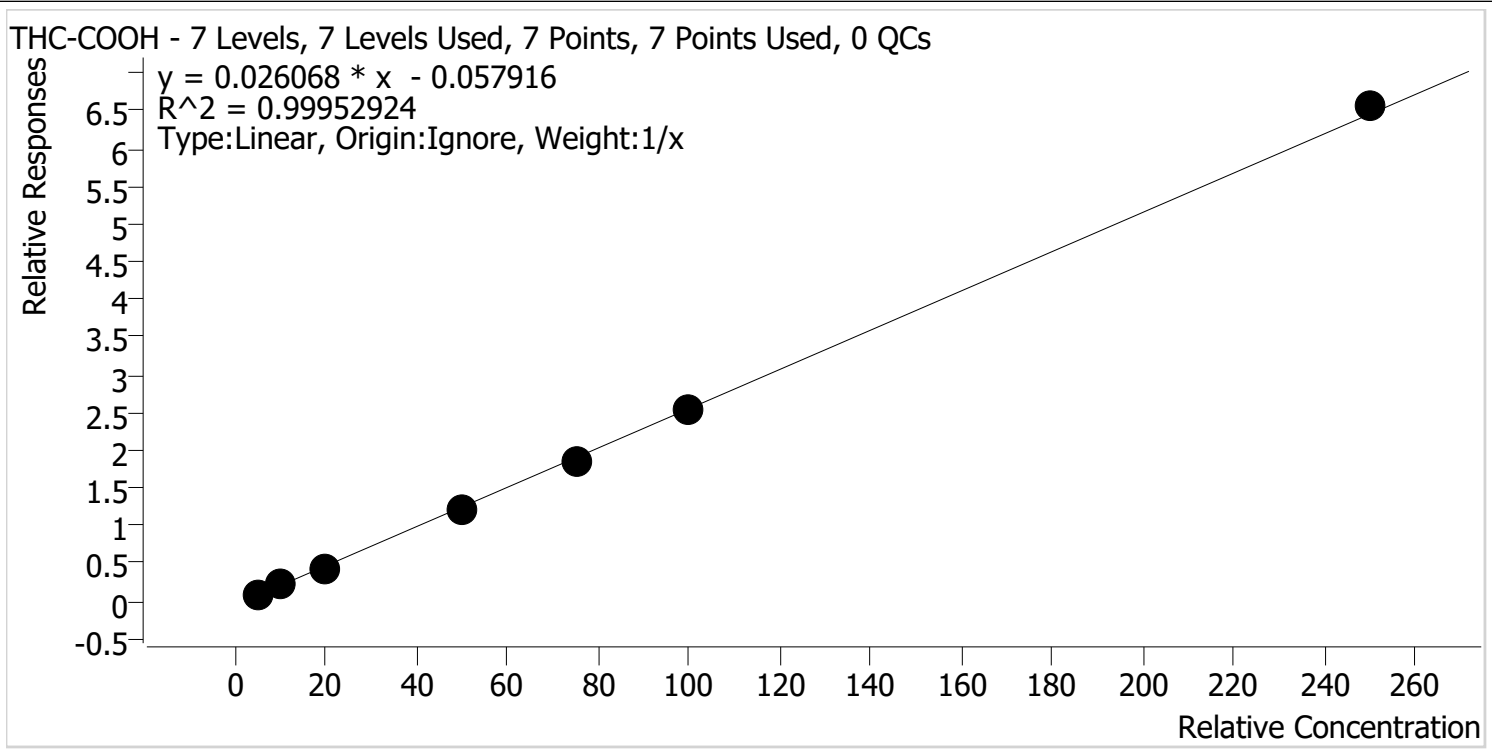


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
MJQ_Cal 1	1	✓	1.0	1.1	109.5
MJQ_Cal 2	2	✓	3.0	2.9	97.2
MJQ_Cal 3	3	✓	5.0	4.8	95.6
MJQ_Cal 4	4	✓	10.0	9.7	97.1
MJQ_Cal 5	5	✓	25.0	25.1	100.3
MJQ_Cal 6	6	✓	50.0	49.9	99.8
MJQ_Cal 7	7	✓	100.0	100.5	100.5



AM #27 Cannabinoids Quant. Calibration Curve Report

Batch results D:\MassHunter\Data\2021\AM 27-28\120921 AM 27 28 CS\QuantResults\AM 27 THC-OH removed.batch.bin
Last Cal. Update 12/13/2021 11:51 AM
Analyst Name ISP\datastor
Analyte THC-COOH **Internal Standard** THC-COOH-D9



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
MJQ_Cal 1	1	✓	5.0	5.4	108.3
MJQ_Cal 2	2	✓	10.0	9.9	98.7
MJQ_Cal 3	3	✓	20.0	19.2	96.2
MJQ_Cal 4	4	✓	50.0	49.0	98.1
MJQ_Cal 5	5	✓	75.0	73.8	98.4
MJQ_Cal 6	6	✓	100.0	98.7	98.7
MJQ_Cal 7	7	✓	250.0	253.9	101.6

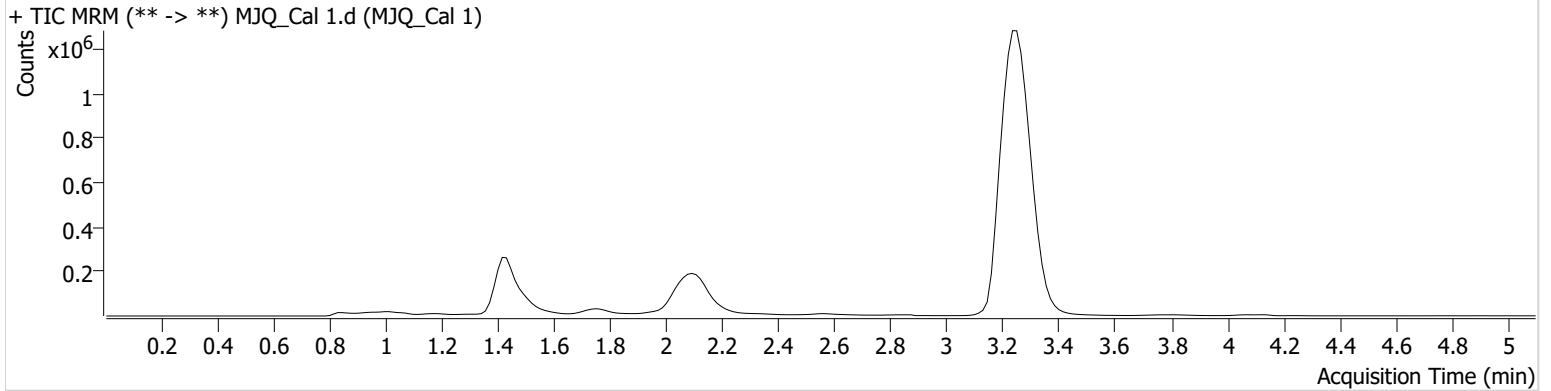


AM #27 Cannabinoid Quant. Results

Batch results D:\MassHunter\Data\2021\AM 27-28\120921 AM 27 28 CS\QuantResults\AM 27 THC-OH removed.batch.bin
Calibration Last Update 12/13/2021 11:51:39 AM

Instrument Falco (069901) **Data File** MJQ_Cal 1.d
Type Cal **Sample** MJQ_Cal 1
Acq. Method AM 27 THCQ.m **Operator** Celena Shrum
Sample Position P1-A1 **Comment**
Injection Volume 10
Acq. Date-Time 12/10/2021 1:23:11 AM
Sample Info.

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-COOH	1.459	17933	∞	63.6	204.44	215286	5.4172 ng/ml
THC	3.254	80029	1526.63	30.7	∞	9416006	1.0945 ng/ml

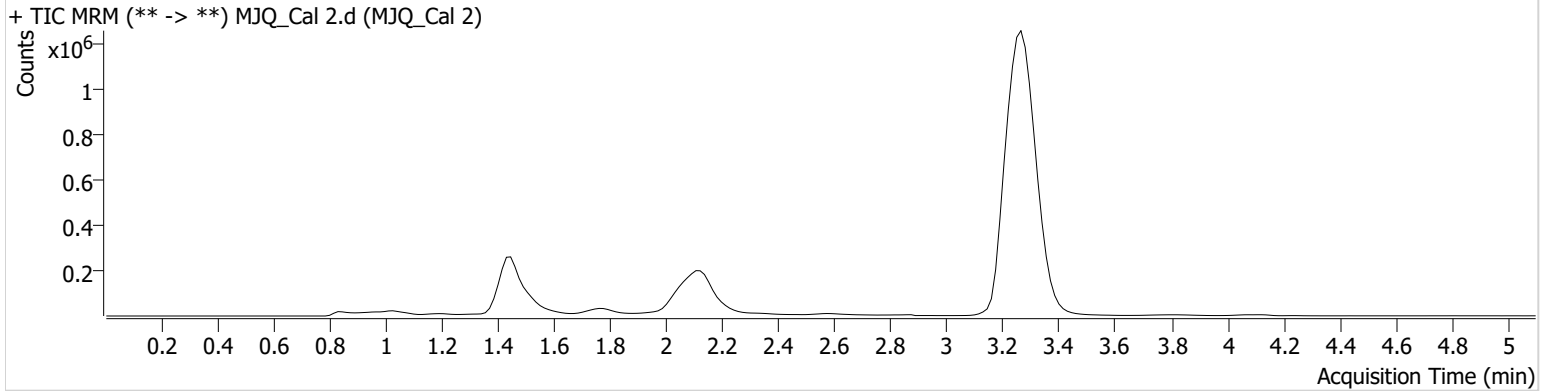


AM #27 Cannabinoid Quant. Results

Batch results D:\MassHunter\Data\2021\AM 27-28\120921 AM 27 28 CS\QuantResults\AM 27 THC-OH removed.batch.bin
Calibration Last Update 12/13/2021 11:51:39 AM

Instrument Falco (069901) **Data File** MJQ_Cal 2.d
Type Cal **Sample** MJQ_Cal 2
Acq. Method AM 27 THCQ.m **Operator** Celena Shrum
Sample Position P1-B1 **Comment**
Injection Volume 10
Acq. Date-Time 12/10/2021 1:30:57 AM
Sample Info.

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-COOH	1.474	41321	∞	77.0	∞	207314	9.8679 ng/ml
THC	3.285	235111	∞	26.5	∞	9162755	2.9158 ng/ml

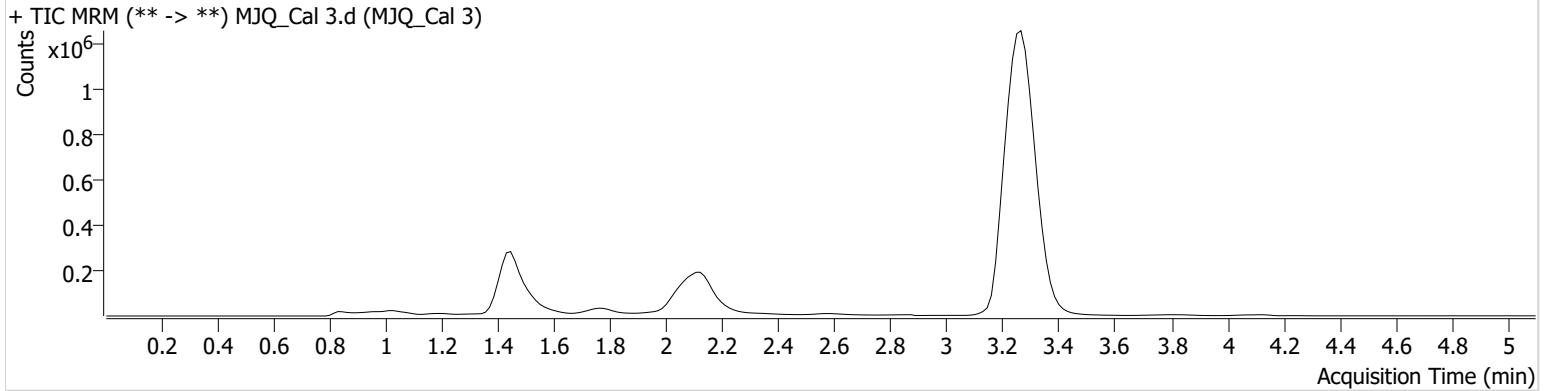
AM #27 Cannabinoid Quant. Results



Batch results D:\MassHunter\Data\2021\AM 27-28\120921 AM 27 28 CS\QuantResults\AM 27 THC-OH removed.batch.bin
Calibration Last Update 12/13/2021 11:51:39 AM

Instrument	Falco (069901)	Data File	MJQ_Cal 3.d
Type	Cal	Sample	MJQ_Cal 3
Acq. Method	AM 27 THCQ.m	Operator	Celena Shrum
Sample Position	P1-C1	Comment	
Injection Volume	10		
Acq. Date-Time	12/10/2021 1:38:34 AM		

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-COOH	1.474	92937	∞	72.8	1126.82	209387	19.2488 ng/ml
THC	3.285	387178	1029.82	25.9	247.49	8962197	4.7777 ng/ml

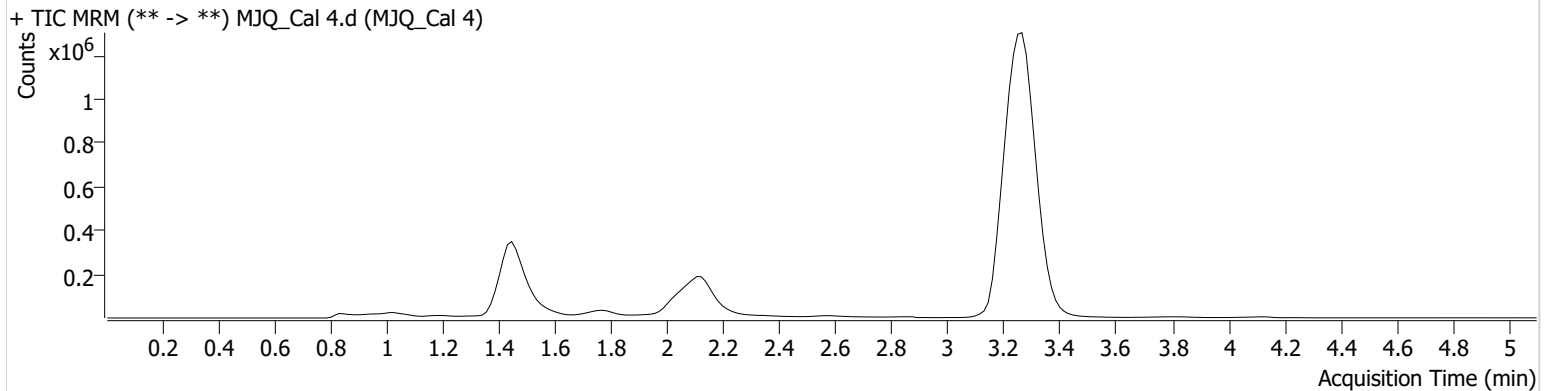
AM #27 Cannabinoid Quant. Results



Batch results D:\MassHunter\Data\2021\AM 27-28\120921 AM 27 28 CS\QuantResults\AM 27 THC-OH removed.batch.bin
Calibration Last Update 12/13/2021 11:51:39 AM

Instrument	Falco (069901)	Data File	MJQ_Cal 4.d
Type	Cal	Sample	MJQ_Cal 4
Acq. Method	AM 27 THCQ.m	Operator	Celena Shrum
Sample Position	P1-D1	Comment	
Injection Volume	10		
Acq. Date-Time	12/10/2021 1:46:10 AM		

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-COOH	1.474	271195	∞	69.2	1519.07	222247	49.0325 ng/ml
THC	3.270	817641	∞	24.8	800.52	9114786	9.7134 ng/ml

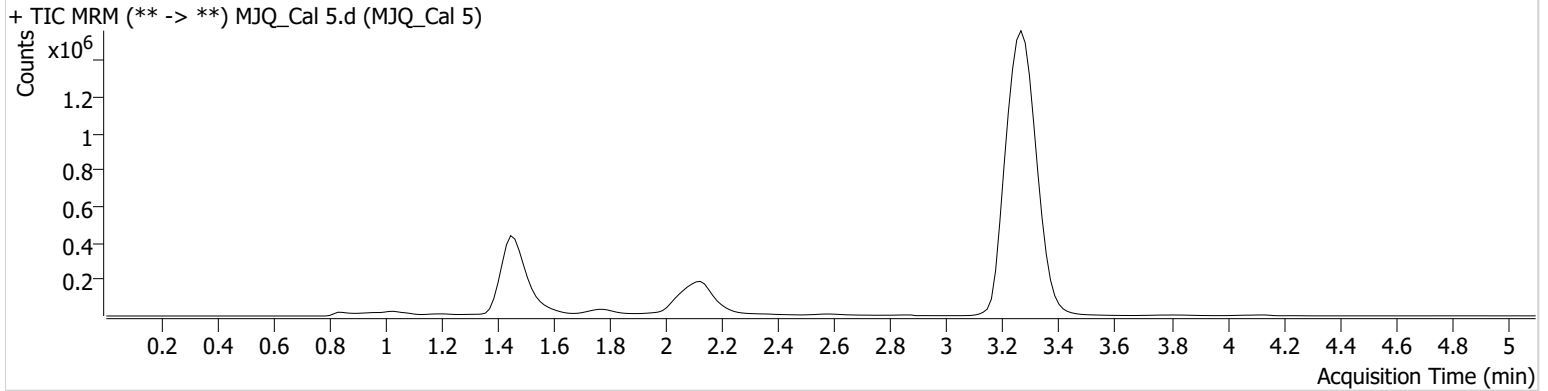
AM #27 Cannabinoid Quant. Results



Batch results D:\MassHunter\Data\2021\AM 27-28\120921 AM 27 28 CS\QuantResults\AM 27 THC-OH removed.batch.bin
Calibration Last Update 12/13/2021 11:51:39 AM

Instrument	Falco (069901)	Data File	MJQ_Cal 5.d
Type	Cal	Sample	MJQ_Cal 5
Acq. Method	AM 27 THCQ.m	Operator	Celena Shrum
Sample Position	P1-E1	Comment	
Injection Volume	10		
Acq. Date-Time	12/10/2021 1:53:45 AM		

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-COOH	1.474	414494	488.24	68.6	∞	222129	73.8055 ng/ml
THC	3.285	2155887	∞	24.9	2262.49	9193522	25.0814 ng/ml

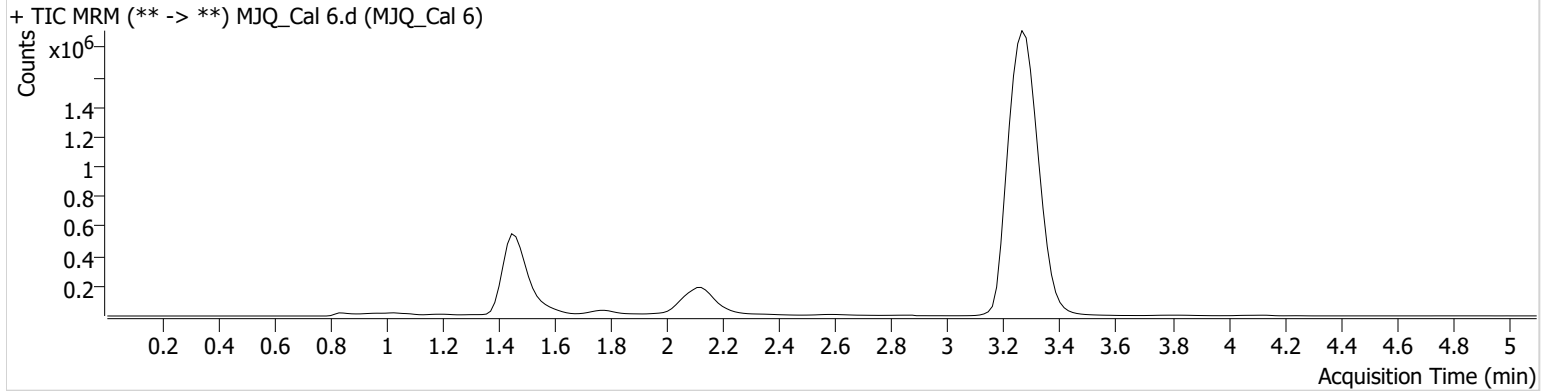
AM #27 Cannabinoid Quant. Results



Batch results D:\MassHunter\Data\2021\AM 27-28\120921 AM 27 28 CS\QuantResults\AM 27 THC-OH removed.batch.bin
Calibration Last Update 12/13/2021 11:51:39 AM

Instrument	Falco (069901)	Data File	MJQ_Cal 6.d
Type	Cal	Sample	MJQ_Cal 6
Acq. Method	AM 27 THCQ.m	Operator	Celena Shrum
Sample Position	P1-F1	Comment	
Injection Volume	10		
Acq. Date-Time	12/10/2021 2:01:21 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-COOH	1.474	554696	∞	68.0	∞	220598	98.6831 ng/ml
THC	3.285	4238226	∞	25.1	∞	9045407	49.9224 ng/ml

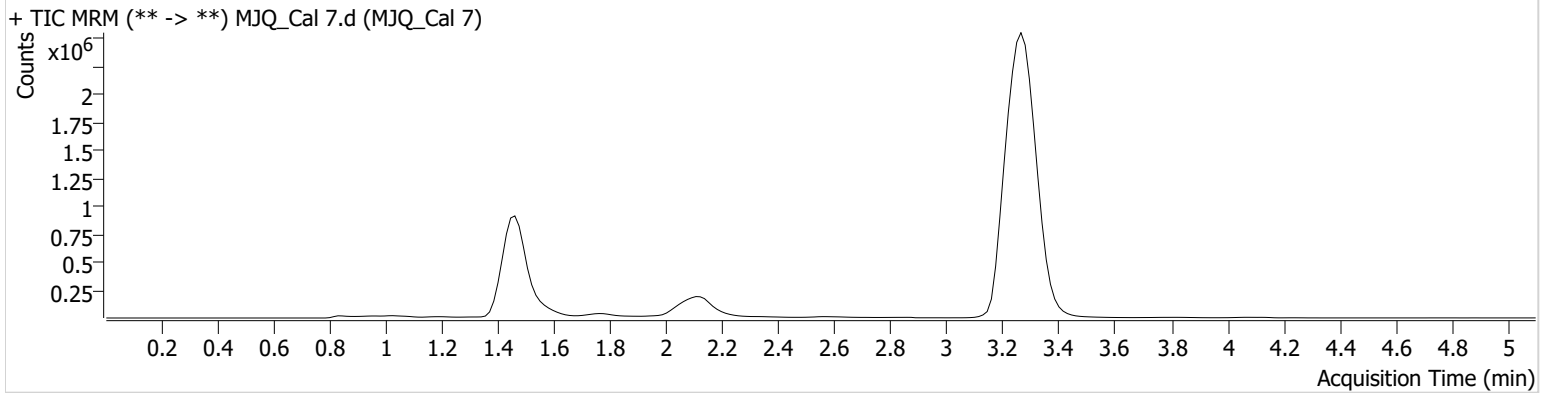
AM #27 Cannabinoid Quant. Results



Batch results D:\MassHunter\Data\2021\AM 27-28\120921 AM 27 28 CS\QuantResults\AM 27 THC-OH removed.batch.bin
Calibration Last Update 12/13/2021 11:51:39 AM

Instrument	Falco (069901)	Data File	MJQ_Cal 7.d
Type	Cal	Sample	MJQ_Cal 7
Acq. Method	AM 27 THCQ.m	Operator	Celena Shrum
Sample Position	P1-G1	Comment	
Injection Volume	10		
Acq. Date-Time	12/10/2021 2:08:57 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-COOH	1.474	1394143	∞	68.0	2241.82	212463	253.9451 ng/ml
THC	3.270	8437818	∞	25.2	∞	8928533	100.4949 ng/ml