

Worklist: 4237

<u>LAB_CASE</u>	<u>ITEM</u>	<u>ITEM_TYPE</u>	<u>DESCRIPTION</u>	
M2020-1292	2	BCK	AM 27 Blood THC Quant by LC-QQQ	
M2020-1326	2	BCK	AM 27 Blood THC Quant by LC-QQQ	
M2020-1474	2	BCK	AM 27 Blood THC Quant by LC-QQQ	
M2020-1534	2	BCK	AM 27 Blood THC Quant by LC-QQQ	
M2020-1556	2	BCK	AM 27 Blood THC Quant by LC-QQQ	
P2020-1211	1	BCK	AM 27 Blood THC Quant by LC-QQQ	
P2020-1283	6	BCK	AM 27 Blood THC Quant by LC-QQQ	
P2020-1300	1	BCK	AM 27 Blood THC Quant by LC-QQQ	
P2020-1352	1	BCK	AM 27 Blood THC Quant by LC-QQQ	
P2020-1353	1	BCK	AM 27 Blood THC Quant by LC-QQQ	
P2020-1378	1	BCK	AM 27 Blood THC Quant by LC-QQQ	
P2020-1379	1	BCK	AM 27 Blood THC Quant by LC-QQQ	
P2020-1380	1	BCK	AM 27 Blood THC Quant by LC-QQQ	
P2020-1400	1	BCK	AM 27 Blood THC Quant by LC-QQQ	
P2020-1403	1	BCK	AM 27 Blood THC Quant by LC-QQQ	
P2020-1406	1	BCK	AM 27 Blood THC Quant by LC-QQQ	

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

Extraction Date: 05/12/2020

Analyst: Celena Shrum

Plate lot#: IDP-108-2-200303

Plate Expiration: 09/30/2020

Mobile phase A: 0.1% Formic Acid in LCMS Water

Mobile phase B: 0.1% Formic acid in Acetonitrile

Blank Blood Lot: 445283-4

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 (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** in wells of analytical plate.
- 5. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- 6. Transfer **800µL of blood+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)** Manifold ID: 067104
- 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. **SPE Dry ID: 067103**
- 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. Case sample response for THC and OH-THC 3ng/mL (quantitative), Carboxy-THC: 10ng/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: THC-OH curve range limited to: 5-100.

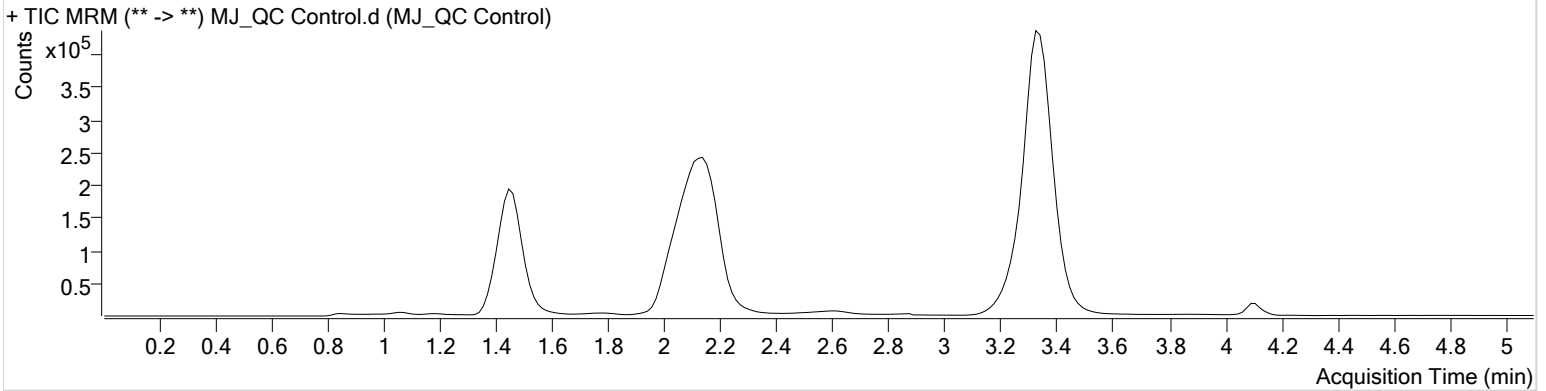
AM #27 Cannabinoid Quant. Results



Batch results D:\MassHunter\Data\2020\AM 27-28\051220 AM 27 28 CS\MJ Reinjects\QuantResults\AM 27.batch.bin
Calibration Last Update 5/18/2020 9:43:54 AM

Instrument	Falco	Data File	MJ_QC Control.d
Type	Sample	Sample	MJ_QC Control
Acq. Method	AM 27 THC quant.m	Operator	Celena Shrum
Sample Position	P3-H1	Comment	
Injection Volume	10		
Acq. Date-Time	5/14/2020 9:21:27 AM		

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-OH	1.453	75238	∞	10.3	∞	690961	4.1152 ng/ml
THC-COOH	1.489	92428	309.18	58.0	241.25	285352	14.5811 ng/ml
THC	3.345	128867	408.61	26.2	96.45	3194773	4.4346 ng/ml

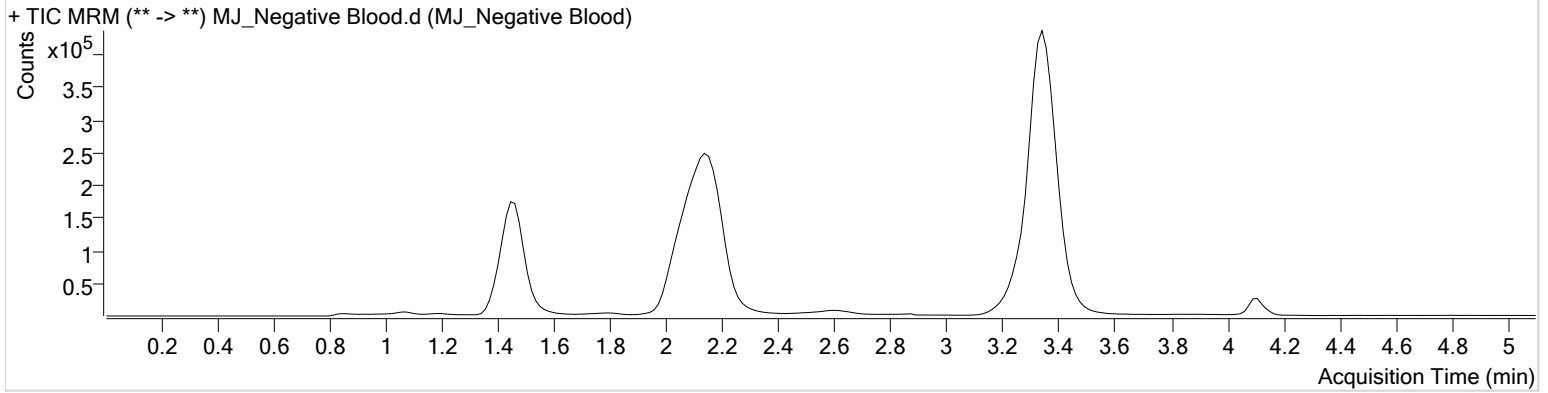
AM #27 Cannabinoid Quant. Results



Batch results D:\MassHunter\Data\2020\AM 27-28\051220 AM 27 28 CS\MJ Reinjects\QuantResults\AM 27.batch.bin
Calibration Last Update 5/18/2020 9:43:54 AM

Instrument	Falco	Data File	MJ_Negative Blood.d
Type	Sample	Sample	MJ_Negative Blood
Acq. Method	AM 27 THC quant.m	Operator	Celena Shrum
Sample Position	P3-A2	Comment	
Injection Volume	10		
Acq. Date-Time	5/14/2020 9:36:39 AM		
Sample Info.			

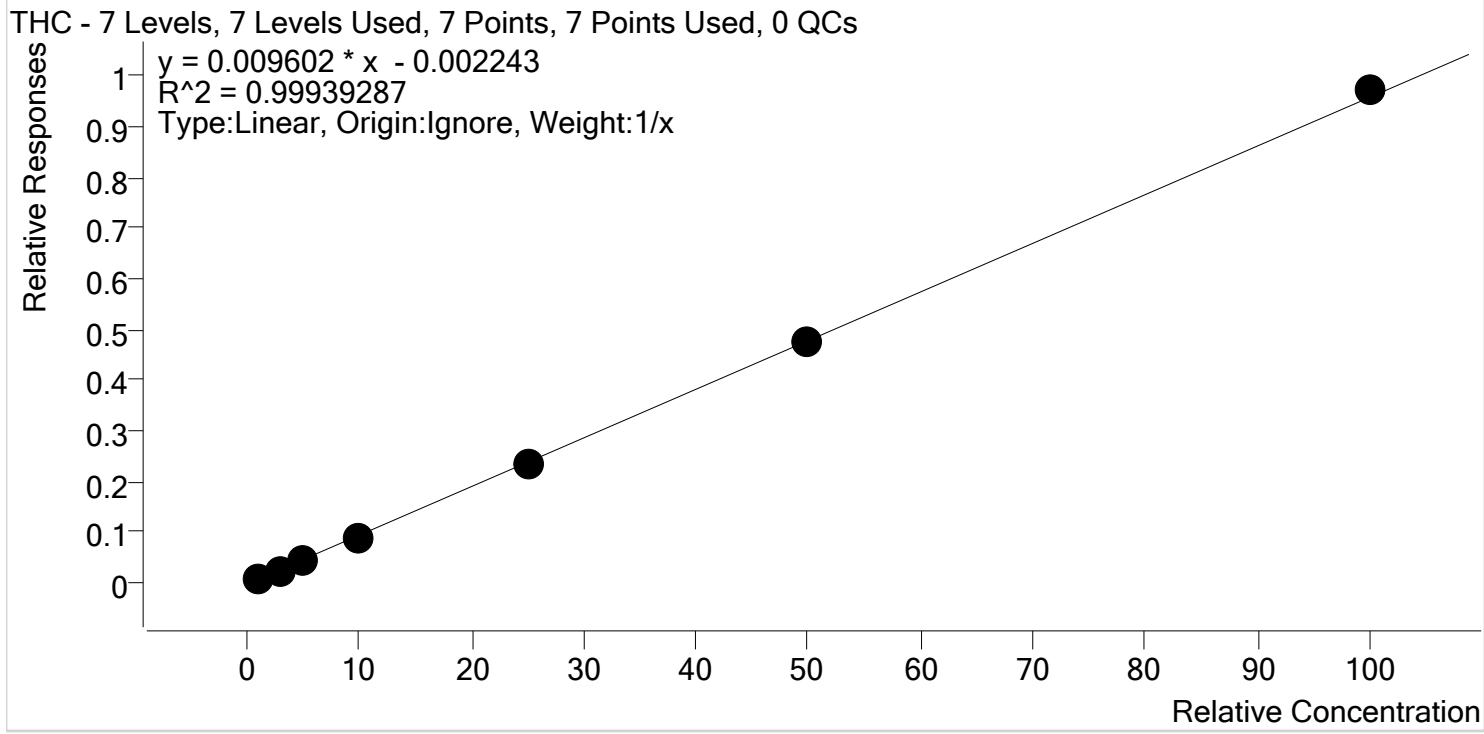
Sample Chromatogram





AM #27 Cannabinoids Quant. Calibration Curve Report

Batch results D:\MassHunter\Data\2020\AM 27-28\051220 AM 27 28 CS\MJ Reinjects\QuantResults\AM 27.batch.bin
Last Cal. Update 5/18/2020 9:43 AM
Analyst Name ISP\Datastor
Analyte THC **Internal Standard** THC-D3

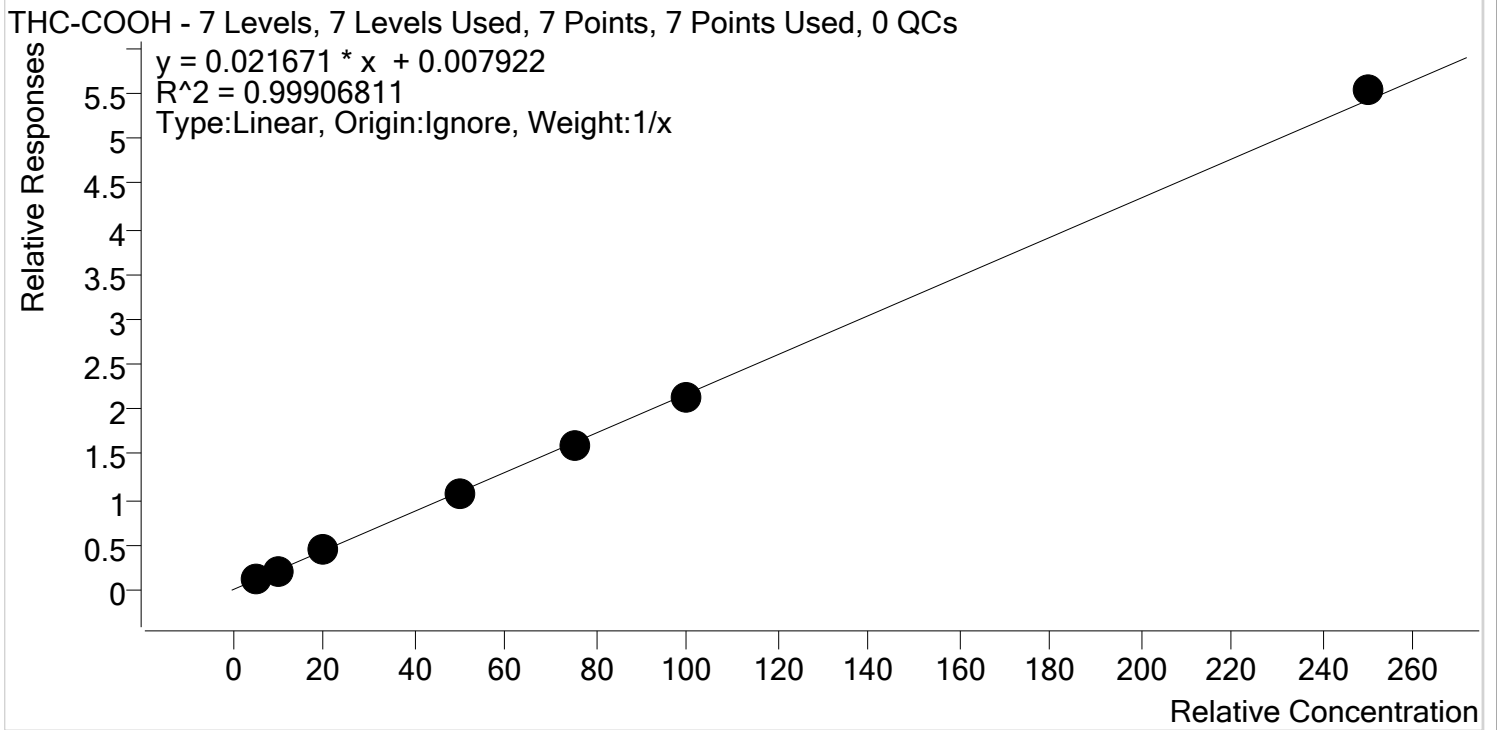


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
MJ_Cal 1	1	✓	1.0	1.1	113.5
MJ_Cal 2	2	✓	3.0	2.9	96.7
MJ_Cal 3	3	✓	5.0	4.9	97.3
MJ_Cal 4	4	✓	10.0	9.4	93.5
MJ_Cal 5	5	✓	25.0	24.4	97.7
MJ_Cal 6	6	✓	50.0	49.9	99.8
MJ_Cal 7	7	✓	100.0	101.4	101.4



AM #27 Cannabinoids Quant. Calibration Curve Report

Batch results D:\MassHunter\Data\2020\AM 27-28\051220 AM 27 28 CS\MJ Reinjects\QuantResults\AM 27.batch.bin
Last Cal. Update 5/18/2020 9:43 AM
Analyst Name ISP\Datastor
Analyte THC-COOH **Internal Standard** THC-COOH-D9

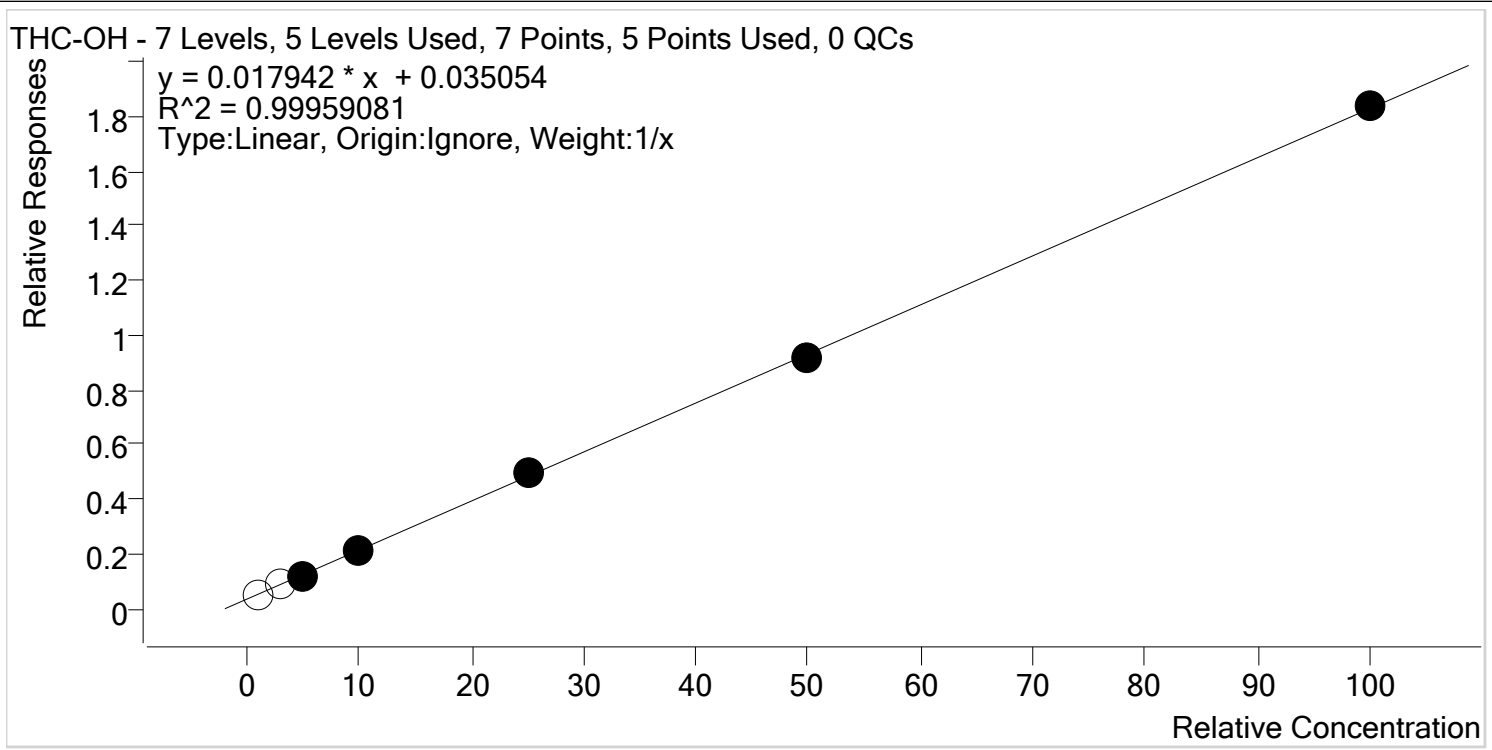


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
MJ_Cal 1	1	✓	5.0	5.7	113.8
MJ_Cal 2	2	✓	10.0	9.2	92.4
MJ_Cal 3	3	✓	20.0	19.7	98.4
MJ_Cal 4	4	✓	50.0	48.6	97.1
MJ_Cal 5	5	✓	75.0	73.4	97.9
MJ_Cal 6	6	✓	100.0	98.4	98.4
MJ_Cal 7	7	✓	250.0	255.0	102.0



AM #27 Cannabinoids Quant. Calibration Curve Report

Batch results D:\MassHunter\Data\2020\AM 27-28\051220 AM 27 28 CS\MJ Reinjects\QuantResults\AM 27.batch.bin
Last Cal. Update 5/18/2020 9:43 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	x	1.0	1.0	97.7
MJ_Cal 2	2	x	3.0	2.9	98.1
MJ_Cal 3	3	✓	5.0	5.0	99.7
MJ_Cal 4	4	✓	10.0	9.9	99.0
MJ_Cal 5	5	✓	25.0	25.8	103.0
MJ_Cal 6	6	✓	50.0	48.9	97.8
MJ_Cal 7	7	✓	100.0	100.4	100.4

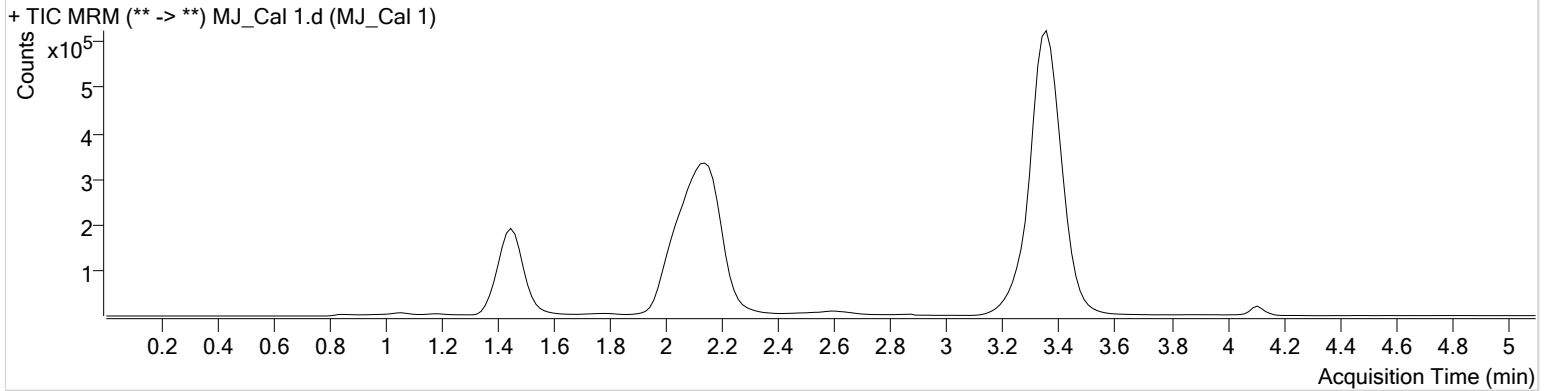
AM #27 Cannabinoid Quant. Results



Batch results D:\MassHunter\Data\2020\AM 27-28\051220 AM 27 28 CS\MJ Reinjects\QuantResults\AM 27.batch.bin
Calibration Last Update 5/18/2020 9:43:54 AM

Instrument	Falco	Data File	MJ_Cal 1.d
Type	Cal	Sample	MJ_Cal 1
Acq. Method	AM 27 THC quant.m	Operator	Celena Shrum
Sample Position	P3-A1	Comment	
Injection Volume	10		
Acq. Date-Time	5/14/2020 8:20:38 AM		

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-OH	1.498	41749	60.29	6.1 Low	10.88	794064	0.9767 ng/ml Low
THC-COOH	1.489	44913	∞	46.0	109.30	342162	5.6915 ng/ml Low
THC	3.360	42996	362.35	27.5	107.81	4965081	1.1355 ng/ml Low

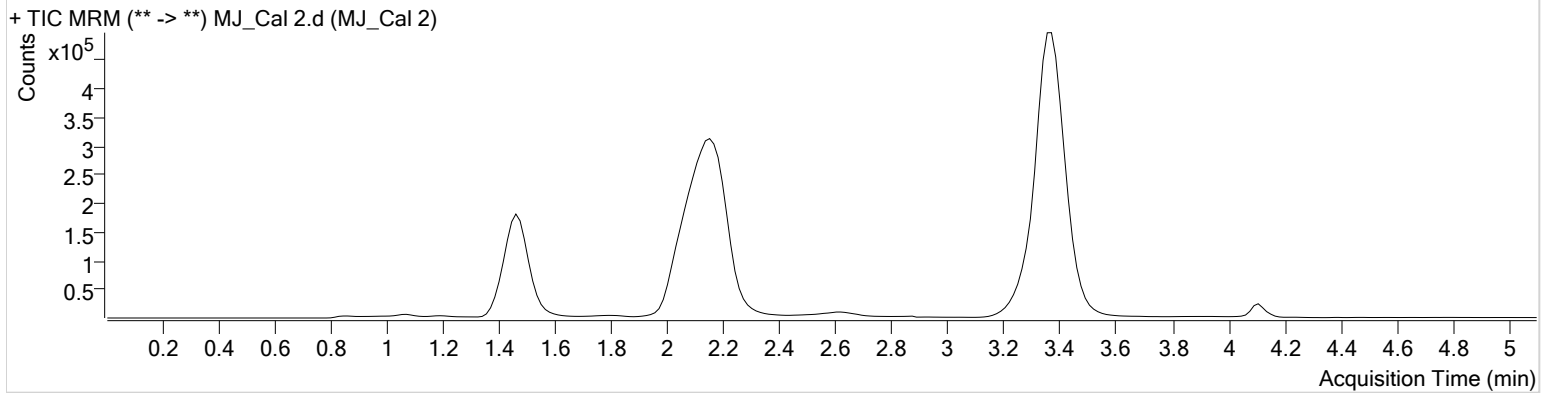
AM #27 Cannabinoid Quant. Results



Batch results D:\MassHunter\Data\2020\AM 27-28\051220 AM 27 28 CS\MJ Reinjects\QuantResults\AM 27.batch.bin
Calibration Last Update 5/18/2020 9:43:54 AM

Instrument	Falco	Data File	MJ_Cal 2.d
Type	Cal	Sample	MJ_Cal 2
Acq. Method	AM 27 THC quant.m	Operator	Celena Shrum
Sample Position	P3-B1	Comment	
Injection Volume	10		
Acq. Date-Time	5/14/2020 8:28:23 AM		

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-OH	1.468	59612	140.85	8.7 Low	33.58	678393	2.9439 ng/ml Low
THC-COOH	1.504	59596	∞	57.3	1671.32	286315	9.2393 ng/ml Low
THC	3.375	95355	230.55	28.5	106.77	3724070	2.9003 ng/ml Low

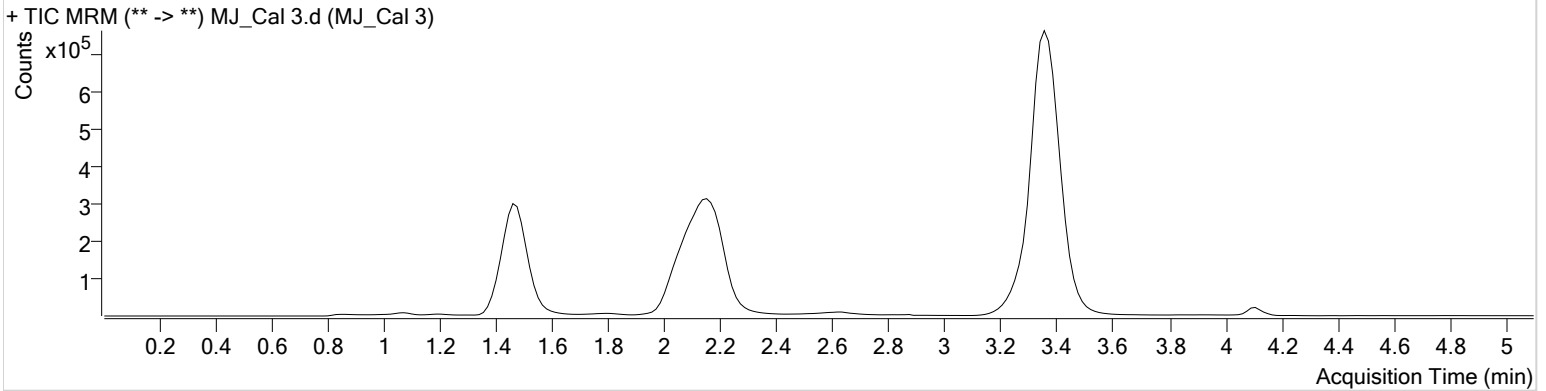
AM #27 Cannabinoid Quant. Results



Batch results D:\MassHunter\Data\2020\AM 27-28\051220 AM 27 28 CS\MJ Reinjects\QuantResults\AM 27.batch.bin
Calibration Last Update 5/18/2020 9:43:54 AM

Instrument	Falco	Data File	MJ_Cal 3.d
Type	Cal	Sample	MJ_Cal 3
Acq. Method	AM 27 THC quant.m	Operator	Celena Shrum
Sample Position	P3-C1	Comment	
Injection Volume	10		
Acq. Date-Time	5/14/2020 8:35:57 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-OH	1.468	131761	∞	10.8	305.09	1058406	4.9848 ng/ml
THC-COOH	1.504	179706	∞	57.2	∞	413872	19.6707 ng/ml
THC	3.360	242625	1792.89	26.3	788.33	5455688	4.8652 ng/ml

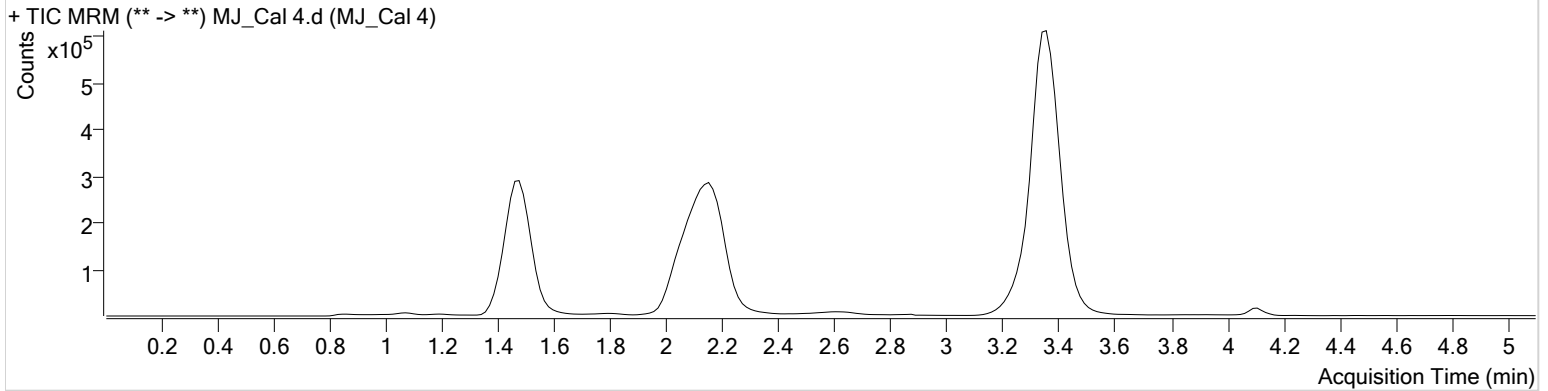
AM #27 Cannabinoid Quant. Results



Batch results D:\MassHunter\Data\2020\AM 27-28\051220 AM 27 28 CS\MJ Reinjects\QuantResults\AM 27.batch.bin
Calibration Last Update 5/18/2020 9:43:54 AM

Instrument	Falco	Data File	MJ_Cal 4.d
Type	Cal	Sample	MJ_Cal 4
Acq. Method	AM 27 THC quant.m	Operator	Celena Shrum
Sample Position	P3-D1	Comment	
Injection Volume	10		
Acq. Date-Time	5/14/2020 8:43:32 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-OH	1.468	170042	∞	11.2	453.01	799566	9.8994 ng/ml
THC-COOH	1.504	338247	∞	60.4	∞	318987	48.5651 ng/ml
THC	3.360	365657	666.37	25.2	266.42	4175807	9.3533 ng/ml

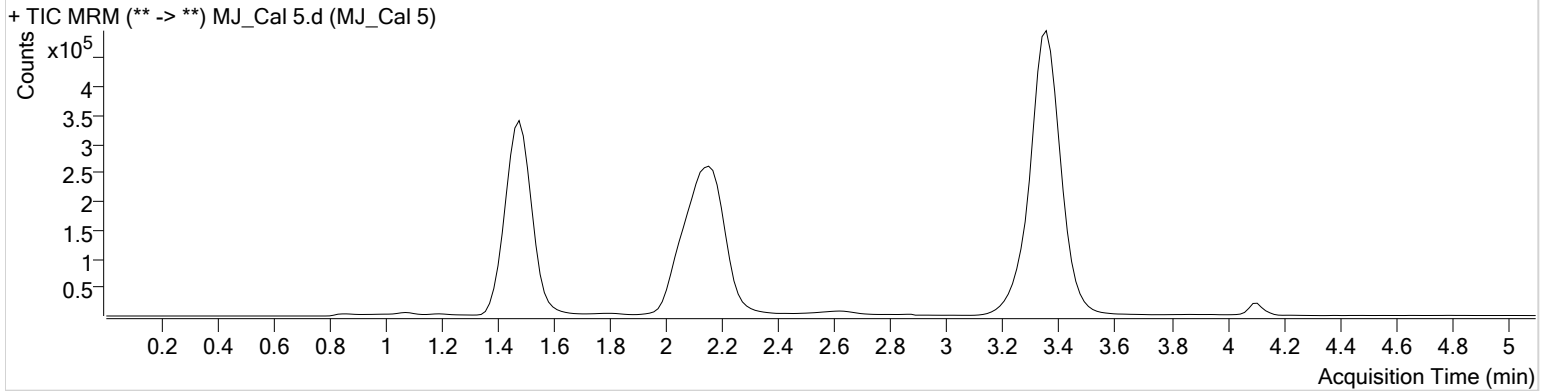
AM #27 Cannabinoid Quant. Results



Batch results D:\MassHunter\Data\2020\AM 27-28\051220 AM 27 28 CS\MJ Reinjects\QuantResults\AM 27.batch.bin
Calibration Last Update 5/18/2020 9:43:54 AM

Instrument	Falco	Data File	MJ_Cal 5.d
Type	Cal	Sample	MJ_Cal 5
Acq. Method	AM 27 THC quant.m	Operator	Celena Shrum
Sample Position	P3-E1	Comment	
Injection Volume	10		
Acq. Date-Time	5/14/2020 8:51:06 AM		

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-OH	1.468	354263	∞	13.0	933.49	712410	25.7621 ng/ml
THC-COOH	1.504	455806	∞	59.0	17367.6	284995	73.4355 ng/ml
THC	3.360	692103	2466.83	25.8	∞	2978818	24.4312 ng/ml

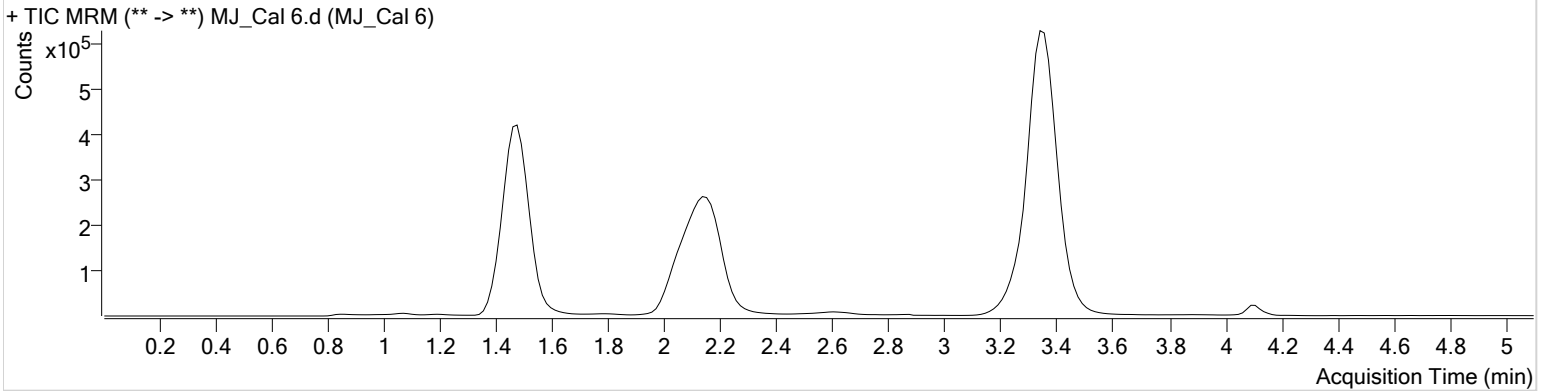
AM #27 Cannabinoid Quant. Results



Batch results D:\MassHunter\Data\2020\AM 27-28\051220 AM 27 28 CS\MJ Reinjects\QuantResults\AM 27.batch.bin
Calibration Last Update 5/18/2020 9:43:54 AM

Instrument	Falco	Data File	MJ_Cal 6.d
Type	Cal	Sample	MJ_Cal 6
Acq. Method	AM 27 THC quant.m	Operator	Celena Shrum
Sample Position	P3-F1	Comment	
Injection Volume	10		
Acq. Date-Time	5/14/2020 8:58:41 AM		

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-OH	1.468	633174	873.17	14.0	∞	693845	48.9082 ng/ml
THC-COOH	1.489	580139	∞	59.1	∞	271141	98.3664 ng/ml
THC	3.360	1454086	7256.85	25.7	1856.01	3049300	49.8969 ng/ml

REVIEWED

By Anne Nord at 10:19 am, May 18, 2020

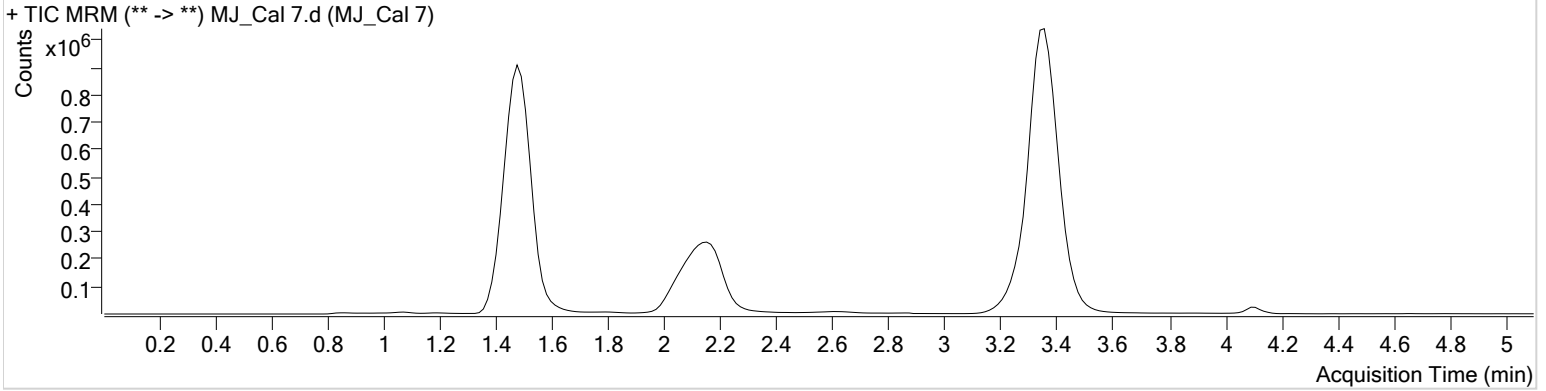


AM #27 Cannabinoid Quant. Results

Batch results D:\MassHunter\Data\2020\AM 27-28\051220 AM 27 28 CS\MJ Reinjects\QuantResults\AM 27.batch.bin
Calibration Last Update 5/18/2020 9:43:54 AM

Instrument	Falco	Data File	MJ_Cal 7.d
Type	Cal	Sample	MJ_Cal 7
Acq. Method	AM 27 THC quant.m	Operator	Celena Shrum
Sample Position	P3-G1	Comment	
Injection Volume	10		
Acq. Date-Time	5/14/2020 9:06:15 AM		

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC-OH	1.468	1532642	∞	13.9	3834.67	834212	100.4455 ng/ml
THC-COOH	1.504	1678484	3063.52	59.2	14787.39	303264	255.0314 ng/ml
THC	3.360	3573718	18574.46	25.4	∞	3678355	101.4176 ng/ml