

Worklist: 6650

<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>	
M2023-5110	1	BCK	AM 27 Blood THC Quant by LC-QQQ	
M2023-5235	3	BCK	AM 27 Blood THC Quant by LC-QQQ	
M2023-5273	2	BCK	AM 27 Blood THC Quant by LC-QQQ	
P2023-3573	1	BCK	AM 27 Blood THC Quant by LC-QQQ	
P2023-3618	1	BCK	AM 27 Blood THC Quant by LC-QQQ	
P2023-3648	1	BCK	AM 27 Blood THC Quant by LC-QQQ	
P2023-3701	1	BCK	AM 27 Blood THC Quant by LC-QQQ	
P2023-3713	1	BCK	AM 27 Blood THC Quant by LC-QQQ	
P2023-3823	1	BCK	AM 27 Blood THC Quant by LC-QQQ	
P2023-3835	1	BLOOD	AM 27 Blood THC Quant by LC-QQQ	
P2023-3847	1	BCK	AM 27 Blood THC Quant by LC-QQQ	
P2023-3859	1	BCK	AM 27 Blood THC Quant by LC-QQQ	
P2023-3862	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: 01/11/2024
Plate lot#: 231212
Mobile phase A: 0.1% Formic Acid in LCMS Water
Blank Blood Lot: Lampire 23E52981
Column: UCT Selectra DA 100 x 2.1mm 3um

Analyst: Tamara Salazar
Plate Retest Date: 06/12/2024
Mobile phase B: 0.1% Formic acid in Acetonitrile
Blank Urine Lot:
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. Urine hydrolysis: add 1.5mL urine to blank plate, add 250µl 1N KOH. Shake and incubate at 40 degrees for 15 minutes.
- 3. Using a calibrated pipette, add **1000µl blood and urine (if applicable) (calibrated pipette)** into the appropriate wells of analytical (standards) plate. **Pipette ID: 42**
- 4. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- 5. Add **500µL of 0.1% formic acid in water to blood samples,** and **500µL of saturated phosphate buffer to urine samples** in the wells of the analytical plate.
- 6. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- 7. Transfer **700-800µL of blood+acid or urine+acid** mixture to corresponding wells of SLE+ plate.
Amount transferred: 750µL
- 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 **2.25mL MTBE. (Add in 3 increments of 750uL)**
- 11. Wait 5 minutes.
- 12. Apply positive pressure for approx. 15 seconds. *(10-15 PSI- Selector to the left).*
- 13. Add **2.25mL Hexane. (Add in 3 increments of 750uL)**
- 14. Wait 5 minutes.
- 15. Apply positive pressure for approx. 15 seconds. *(10-15 PSI- Selector to the left).*
- 16. Remove plate containing eluate. Place on SPE Dry and evaporate to dryness at approx. 35°C.
- 17. 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. 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: Case number P2023-3713-1 failed to inject properly with the initial injection. The sample was reconstituted and re-injected on 01/12/2024.

TS

	1	2	3	4	5	6
A	IS + Cal. 1	IS + QC_1	P2023-3701-1			IS + QC_1
B	IS + Cal. 2	Neg Blood	P2023-3713-1			IS + Cal. 7
C	IS + Cal. 3	M2023-5110-1	P2023-3823-1			IS + Cal. 6
D	IS + Cal. 4	M2023-5235-3	P2023-3835-1			IS + Cal. 5
E	IS + Cal. 5	M2023-5273-2	P2023-3847-1			IS + Cal. 4
F	IS + Cal. 6	P2023-3573-1	P2023-3859-1			IS + Cal. 3
G	IS + Cal. 7	P2023-3618-1	P2023-3862-1			IS + Cal. 2
H	IS + QC_1	P2023-3648-1			IS + QC_1	IS + Cal. 1

All wells to contain 100 µl of residual DMSO



TS

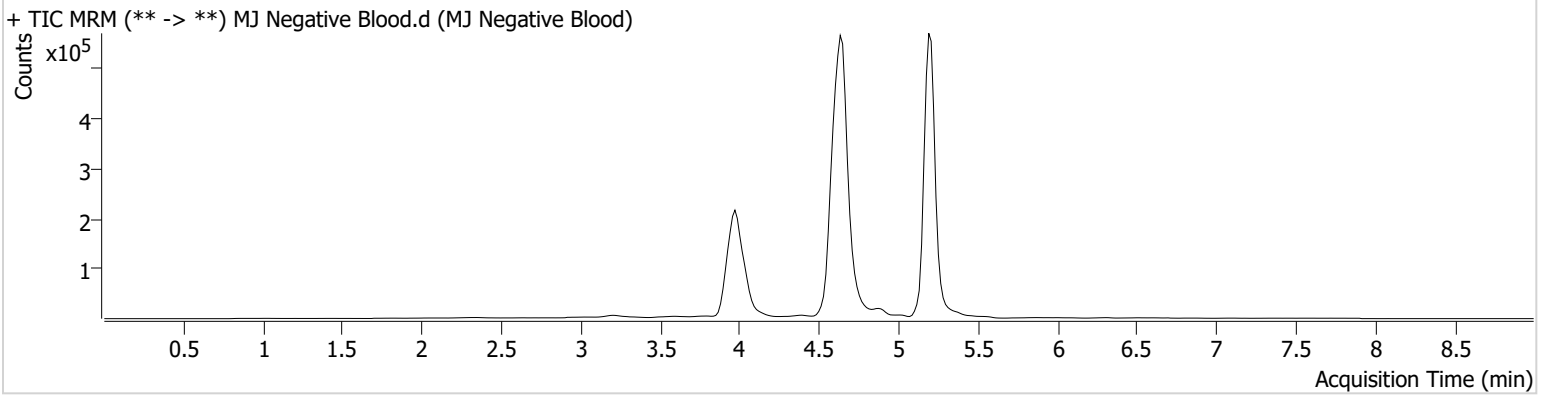


AM #27 Cannabinoids Quant. Results

Batch results D:\MassHunter\Data\2024\AM 27 28\011124 AM 27 28 TS\QuantResults\AM 27.batch.bin
Calibration Last Update 1/12/2024 12:35:57 PM

Instrument	Falco (069901)	Data File	MJ Negative Blood.d
Type	Sample	Sample	MJ Negative Blood
Acq. Method	AM 27 Agilent Method.m	Operator	Tamara Salazar
Sample Position	P1-B2	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	1/11/2024 2:46:19 PM		
Sample Info.			

Sample Chromatogram



TS



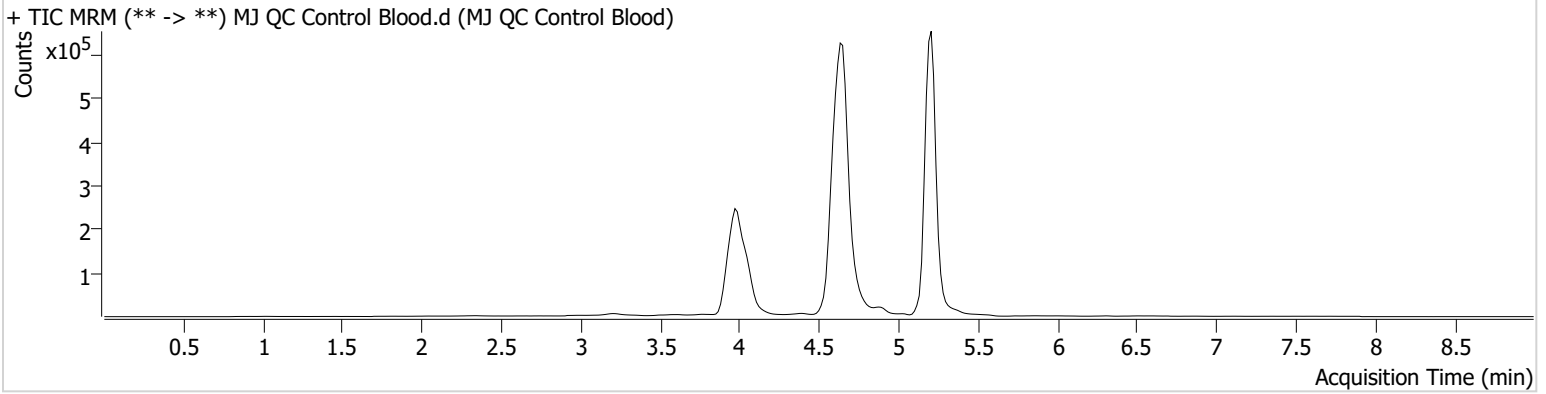
AM #27 Cannabinoids Quant. Results

Batch results D:\MassHunter\Data\2024\AM 27 28\011124 AM 27 28 TS\QuantResults\AM 27.batch.bin
Calibration Last Update 1/12/2024 12:35:57 PM

Instrument Falco (069901) **Data File** MJ QC Control Blood.d
Type QC **Sample** MJ QC Control Blood
Acq. Method AM 27 Agilent Method.m **Operator** Tamara Salazar
Sample Position P1-H1 **Comment**
Injection Volume 10
Acq. Date-Time 1/11/2024 2:20:07 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	5.210	131320	∞	25.0	∞	2716470	5.1648 ng/ml
THC-COOH	4.045	36756	282.94	247.8	∞	389908	14.5519 ng/ml
THC-OH	3.971	81449	∞	14.5	∞	1164847	4.8849 ng/ml

TS



AM #27 Cannabinoids Quant. Results

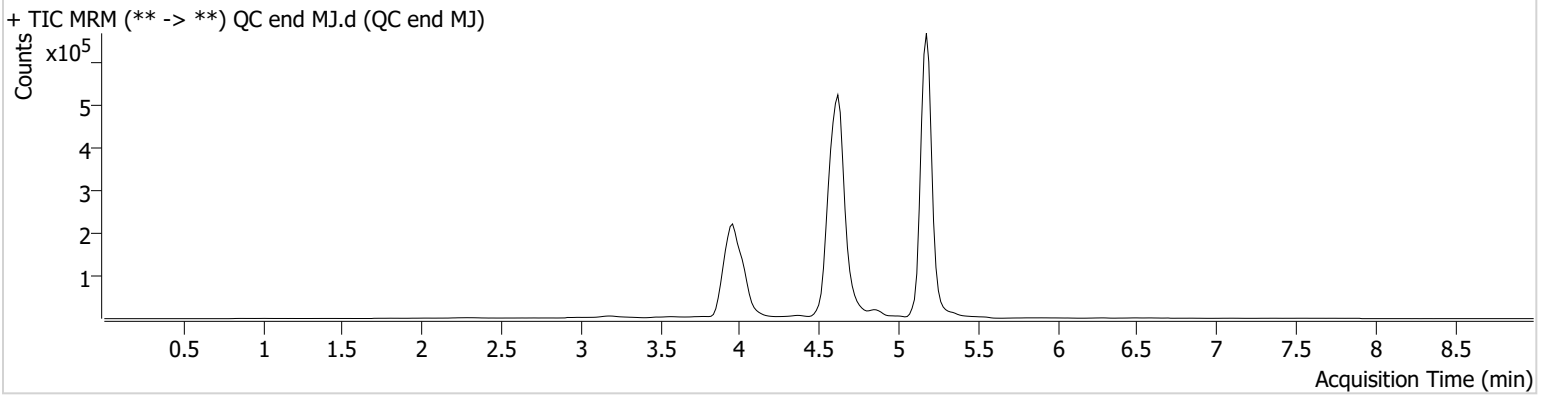
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Calibration Last Update 1/12/2024 12:35:57 PM

Instrument Falco (069901)
Type QC
Acq. Method AM 27 Agilent Method.m
Sample Position P1-A2
Injection Volume 10
Acq. Date-Time 1/11/2024 8:53:30 PM
Sample Info.

Data File QC end MJ.d
Sample QC end MJ
Operator Tamara Salazar
Comment

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Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.180	127996	∞	26.9	∞	2896693	4.7376 ng/ml
THC-COOH	4.030	37274	186.02	218.3	∞	376503	15.2393 ng/ml
THC-OH	3.941	82737	∞	13.1	∞	1038986	5.5160 ng/ml

TS

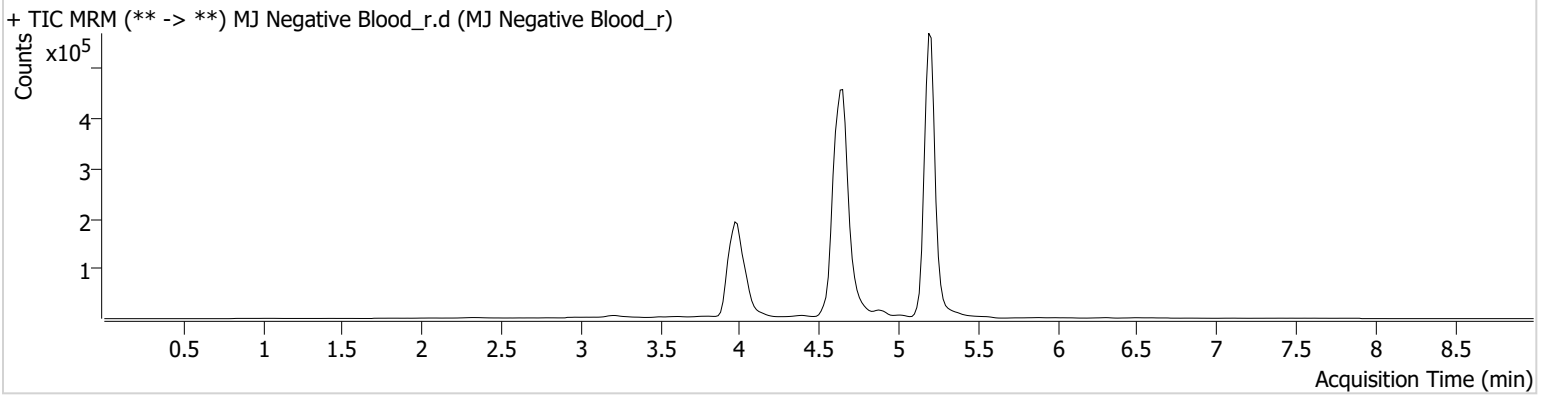


AM #27 Cannabinoids Quant. Results

Batch results D:\MassHunter\Data\2024\AM 27 28\011124 AM 27 28 TS\QuantResults\AM 27.batch.bin
Calibration Last Update 1/12/2024 12:35:57 PM

Instrument	Falco (069901)	Data File	MJ Negative Blood_r.d
Type	Sample	Sample	MJ Negative Blood_r
Acq. Method	AM 27 Agilent Method.m	Operator	Tamara Salazar
Sample Position	P1-B2	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	1/12/2024 11:27:16 AM		
Sample Info.	Injected with the re-injected sample.		

Sample Chromatogram



TS



AM #27 Cannabinoids Quant. Results

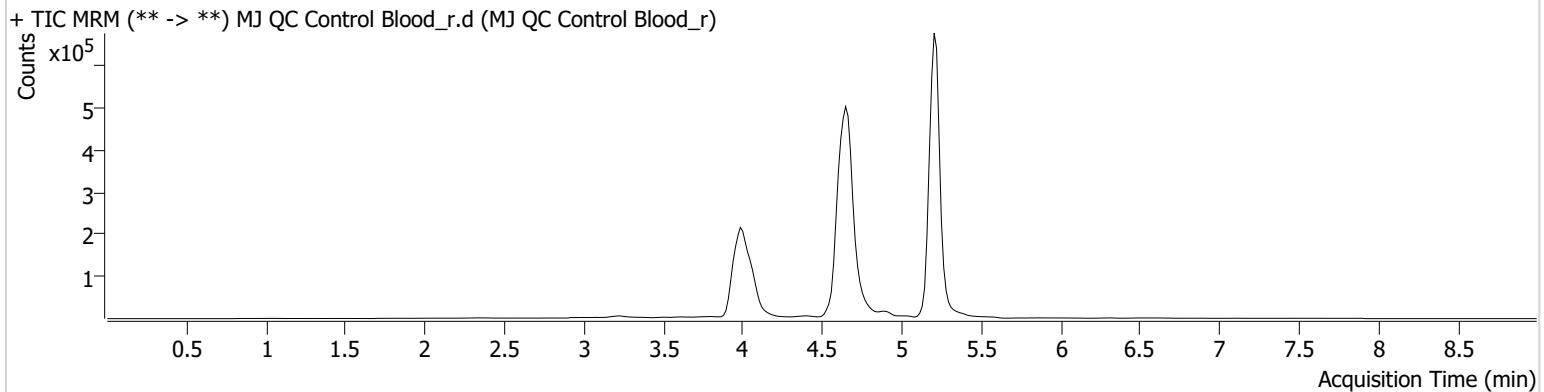
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Calibration Last Update 1/12/2024 12:35:57 PM

Instrument Falco (069901) **Data File** MJ QC Control Blood_r.d
Type QC **Sample** MJ QC Control Blood_r
Acq. Method AM 27 Agilent Method.m **Operator** Tamara Salazar
Sample Position P1-H1 **Comment**
Injection Volume 10
Acq. Date-Time 1/12/2024 11:00:52 AM
Sample Info.

Used to bracket re-injected sample.

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Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.210	128393	∞	25.7	∞	2701184	5.0816 ng/ml
THC-COOH	4.060	33406	404.93	226.9	∞	356929	14.4540 ng/ml
THC-OH	3.986	73812	∞	14.2	72.31	984441	5.2135 ng/ml

TS



AM #27 Cannabinoids Quant. Results

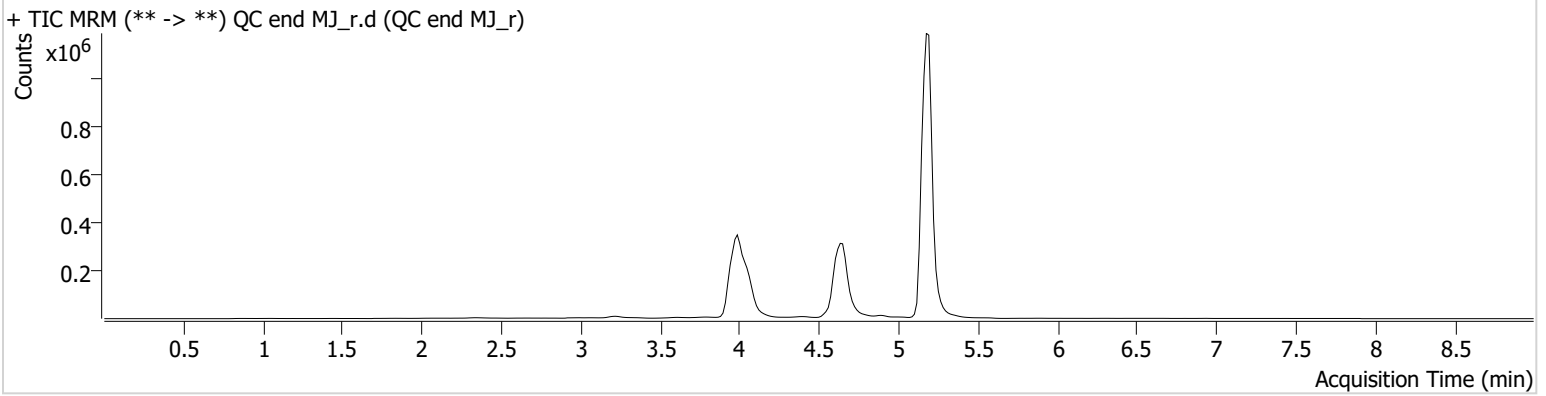
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Calibration Last Update 1/12/2024 12:35:57 PM

Instrument Falco (069901) **Data File** QC end MJ_r.d
Type QC **Sample** QC end MJ_r
Acq. Method AM 27 Agilent Method.m **Operator** Tamara Salazar
Sample Position P1-A2 **Comment**
Injection Volume 10
Acq. Date-Time 1/12/2024 12:19:46 PM
Sample Info.

Used to bracket re-injected sample.

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Sample Chromatogram



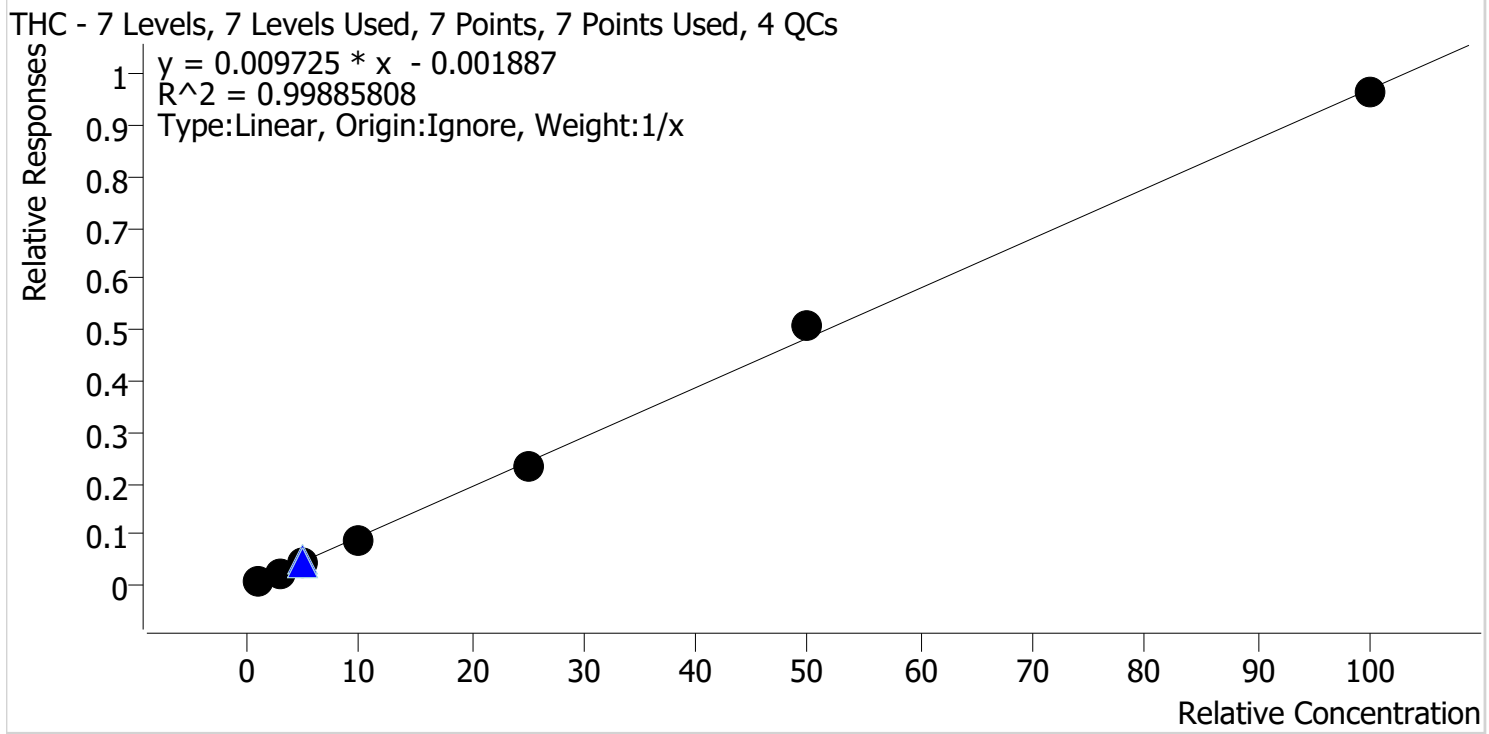
Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.195	203406	∞	24.7	∞	4843280	4.5124 ng/ml
THC-COOH	4.060	51149	∞	223.8	413.54	515241	15.2788 ng/ml
THC-OH	3.986	117517	∞	13.4	393.06	1514575	5.3833 ng/ml

TS



AM #27 Cannabinoids Quant. Calibration Curve Report

Batch results D:\MassHunter\Data\2024\AM 27 28\011124 AM 27 28 TS\QuantResults\AM 27.batch.bin
Last Cal. Update 1/12/2024 12:35 PM
Analyst Name ISP\datastor
Analyte THC **Internal Standard** THC-D3



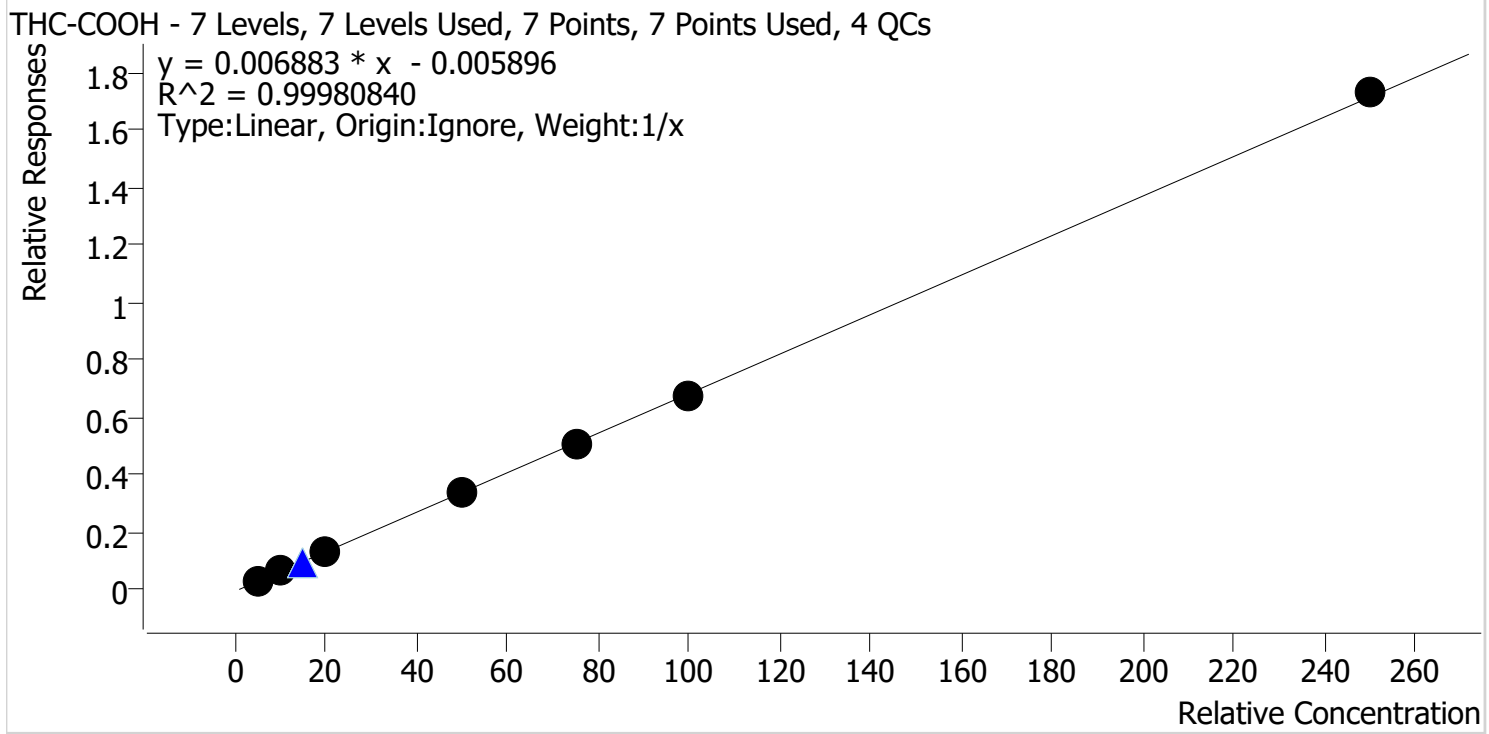
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1 MJ	1	✓	1.0	1.1	114.1
Cal 2 MJ	2	✓	3.0	2.9	95.5
Cal 3 MJ	3	✓	5.0	4.8	95.0
Cal 4 MJ	4	✓	10.0	9.4	94.4
Cal 5 MJ	5	✓	25.0	24.3	97.3
Cal 6 MJ	6	✓	50.0	52.2	104.4
Cal 7 MJ	7	✓	100.0	99.3	99.3

TS



AM #27 Cannabinoids Quant. Calibration Curve Report

Batch results D:\MassHunter\Data\2024\AM 27 28\011124 AM 27 28 TS\QuantResults\AM 27.batch.bin
Last Cal. Update 1/12/2024 12:35 PM
Analyst Name ISP\datastor
Analyte THC-COOH **Internal Standard** THC-COOH-D9



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1 MJ	1	✓	5.0	5.3	105.7
Cal 2 MJ	2	✓	10.0	9.9	98.9
Cal 3 MJ	3	✓	20.0	19.4	97.1
Cal 4 MJ	4	✓	50.0	49.6	99.2
Cal 5 MJ	5	✓	75.0	74.0	98.7
Cal 6 MJ	6	✓	100.0	99.5	99.5
Cal 7 MJ	7	✓	250.0	252.3	100.9

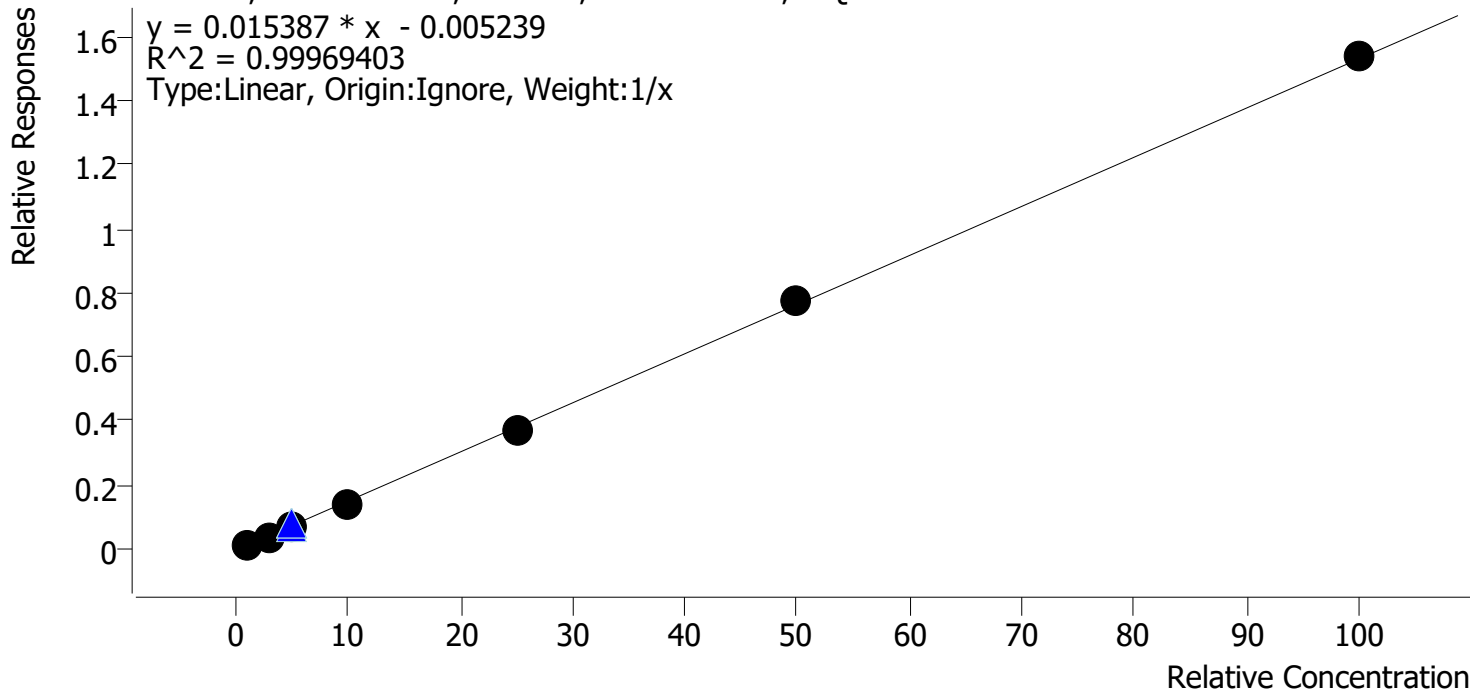
TS



AM #27 Cannabinoids Quant. Calibration Curve Report

Batch results D:\MassHunter\Data\2024\AM 27 28\011124 AM 27 28 TS\QuantResults\AM 27.batch.bin
Last Cal. Update 1/12/2024 12:35 PM
Analyst Name ISP\datastor
Analyte THC-OH **Internal Standard** THC-OH-D3

THC-OH - 7 Levels, 7 Levels Used, 7 Points, 7 Points Used, 4 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1 MJ	1	✓	1.0	1.1	111.1
Cal 2 MJ	2	✓	3.0	2.9	95.4
Cal 3 MJ	3	✓	5.0	4.9	97.4
Cal 4 MJ	4	✓	10.0	9.6	96.4
Cal 5 MJ	5	✓	25.0	24.6	98.2
Cal 6 MJ	6	✓	50.0	50.5	101.0
Cal 7 MJ	7	✓	100.0	100.4	100.4

TS



AM #27 Cannabinoids Quant. Results

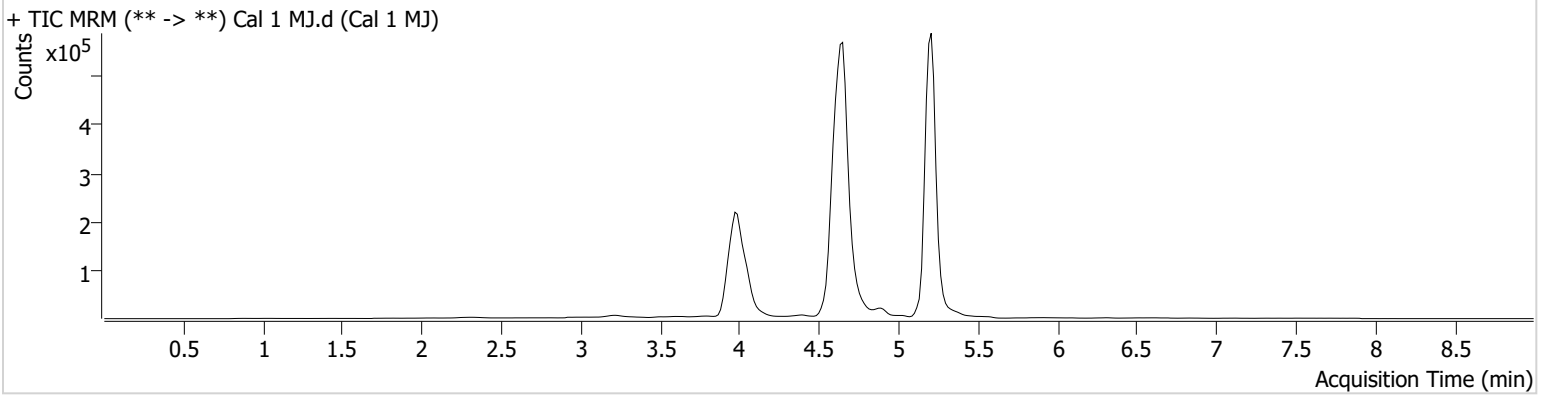
Batch results D:\MassHunter\Data\2024\AM 27 28\011124 AM 27 28 TS\QuantResults\AM 27.batch.bin
Calibration Last Update 1/12/2024 12:35:57 PM

Instrument Falco (069901)
Type Cal
Acq. Method AM 27 Agilent Method.m
Sample Position P1-A1
Injection Volume 10
Acq. Date-Time 1/11/2024 12:35:07 PM
Sample Info.

Data File Cal 1 MJ.d
Sample Cal 1 MJ
Operator Tamara Salazar
Comment

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Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.210	23239	∞	29.9	∞	2523967	1.1407 ng/ml
THC-COOH	4.060	11401	342.11	258.9	∞	373931	5.2860 ng/ml
THC-OH	3.986	12910	∞	17.5	27.66	1088308	1.1115 ng/ml

TS



AM #27 Cannabinoids Quant. Results

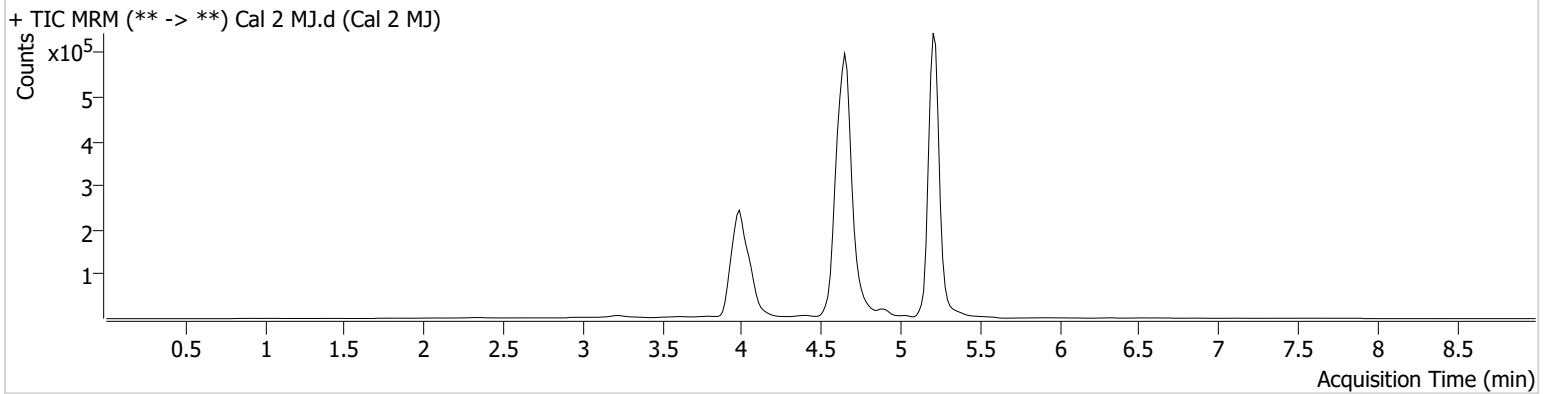
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Calibration Last Update 1/12/2024 12:35:57 PM

Instrument Falco (069901)
Type Cal
Acq. Method AM 27 Agilent Method.m
Sample Position P1-B1
Injection Volume 10
Acq. Date-Time 1/11/2024 12:48:23 PM
Sample Info.

Data File Cal 2 MJ.d
Sample Cal 2 MJ
Operator Tamara Salazar
Comment

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Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.225	73654	∞	26.0	∞	2835353	2.8651 ng/ml
THC-COOH	4.060	24341	96.22	238.8	295.03	391471	9.8897 ng/ml
THC-OH	3.986	45933	∞	15.1	∞	1184288	2.8612 ng/ml

TS



AM #27 Cannabinoids Quant. Results

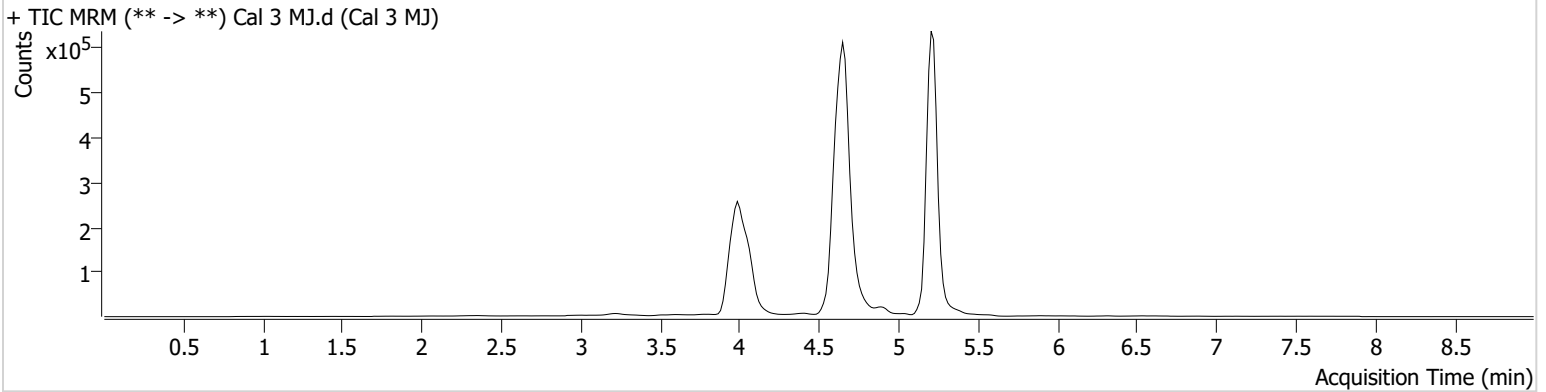
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Calibration Last Update 1/12/2024 12:35:57 PM

Instrument Falco (069901)
Type Cal
Acq. Method AM 27 Agilent Method.m
Sample Position P1-C1
Injection Volume 10
Acq. Date-Time 1/11/2024 1:01:29 PM
Sample Info.

Data File Cal 3 MJ.d
Sample Cal 3 MJ
Operator Tamara Salazar
Comment

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Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.225	123504	∞	25.2	∞	2786440	4.7516 ng/ml
THC-COOH	4.060	51264	∞	240.0	∞	401275	19.4165 ng/ml
THC-OH	3.986	82514	∞	15.1	69.69	1184406	4.8683 ng/ml

TS



AM #27 Cannabinoids Quant. Results

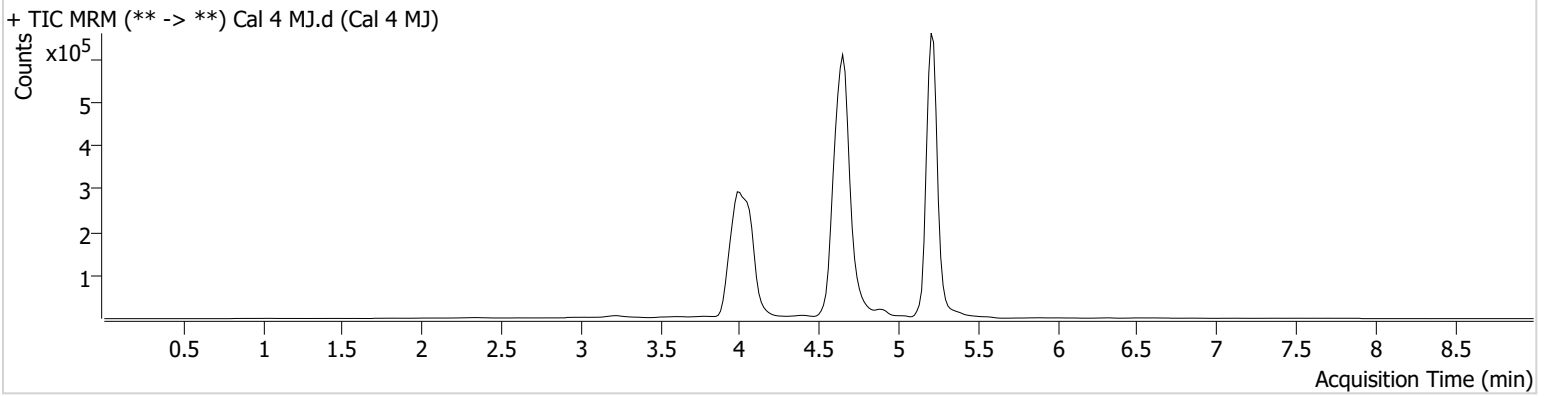
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Calibration Last Update 1/12/2024 12:35:57 PM

Instrument Falco (069901)
Type Cal
Acq. Method AM 27 Agilent Method.m
Sample Position P1-D1
Injection Volume 10
Acq. Date-Time 1/11/2024 1:14:36 PM
Sample Info.

Data File Cal 4 MJ.d
Sample Cal 4 MJ
Operator Tamara Salazar
Comment

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Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.225	245275	∞	25.4	∞	2727442	9.4410 ng/ml
THC-COOH	4.060	134805	682.54	233.0	∞	401844	49.5931 ng/ml
THC-OH	3.986	174581	∞	14.1	86.16	1219888	9.6417 ng/ml

TS



AM #27 Cannabinoids Quant. Results

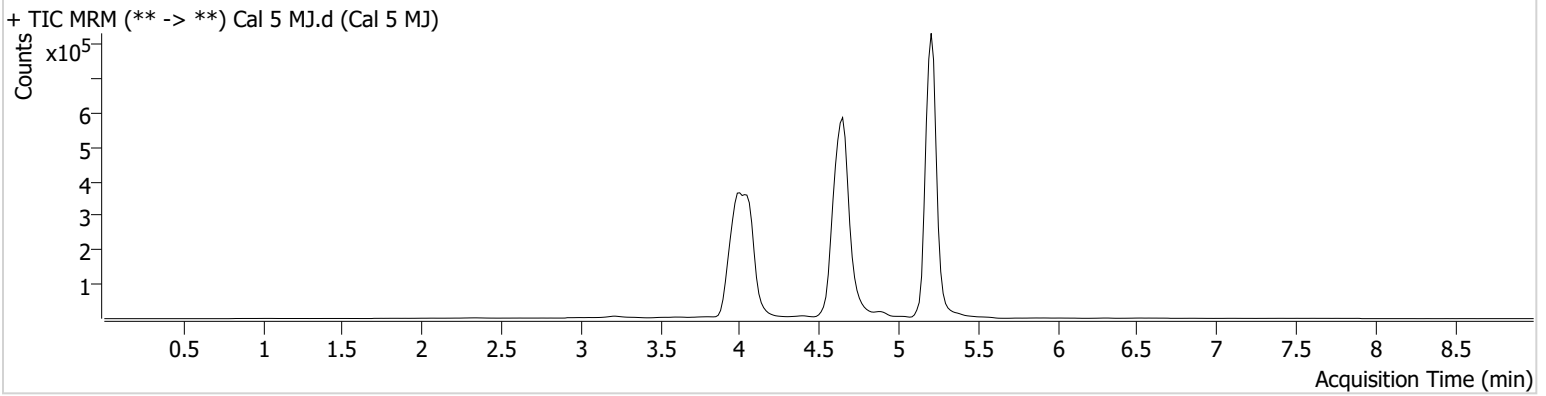
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Calibration Last Update 1/12/2024 12:35:57 PM

Instrument Falco (069901)
Type Cal
Acq. Method AM 27 Agilent Method.m
Sample Position P1-E1
Injection Volume 10
Acq. Date-Time 1/11/2024 1:27:42 PM
Sample Info.

Data File Cal 5 MJ.d
Sample Cal 5 MJ
Operator Tamara Salazar
Comment

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Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.210	698113	∞	24.2	∞	2974303	24.3288 ng/ml
THC-COOH	4.060	209333	∞	223.4	∞	415657	74.0226 ng/ml
THC-OH	3.986	462263	∞	14.2	∞	1240871	24.5520 ng/ml

TS



AM #27 Cannabinoids Quant. Results

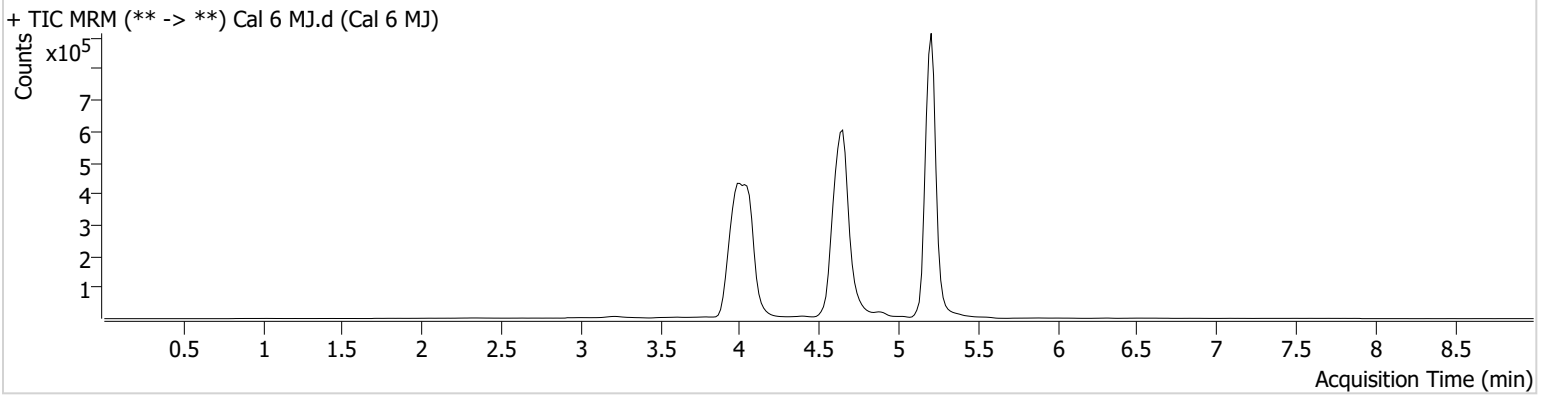
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Calibration Last Update 1/12/2024 12:35:57 PM

Instrument Falco (069901)
Type Cal
Acq. Method AM 27 Agilent Method.m
Sample Position P1-F1
Injection Volume 10
Acq. Date-Time 1/11/2024 1:40:48 PM
Sample Info.

Data File Cal 6 MJ.d
Sample Cal 6 MJ
Operator Tamara Salazar
Comment

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Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.210	1228759	∞	24.9	428.42	2429808	52.1934 ng/ml
THC-COOH	4.060	253308	1206.49	227.6	3650.84	373060	99.5021 ng/ml
THC-OH	3.971	874888	∞	14.0	∞	1133155	50.5196 ng/ml

TS



AM #27 Cannabinoids Quant. Results

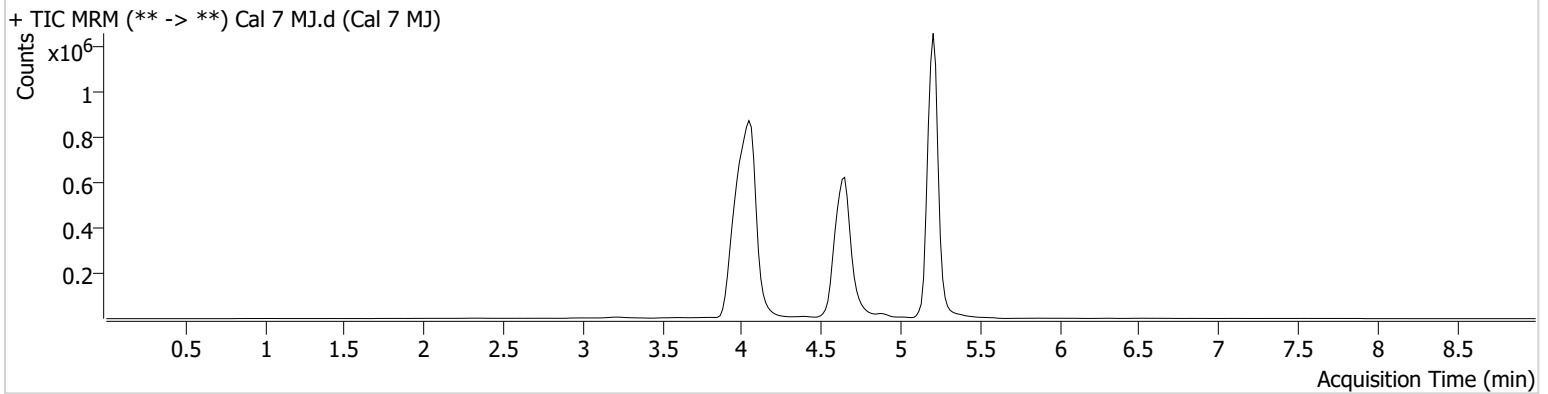
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Calibration Last Update 1/12/2024 12:35:57 PM

Instrument Falco (069901)
Type Cal
Acq. Method AM 27 Agilent Method.m
Sample Position P1-G1
Injection Volume 10
Acq. Date-Time 1/11/2024 1:53:54 PM
Sample Info.

Data File Cal 7 MJ.d
Sample Cal 7 MJ
Operator Tamara Salazar
Comment

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Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.210	2498512	∞	25.4	∞	2592839	99.2794 ng/ml
THC-COOH	4.060	611581	∞	234.4	∞	353377	252.2900 ng/ml
THC-OH	3.971	1788872	∞	14.4	∞	1161399	100.4457 ng/ml