

**REVIEWED**

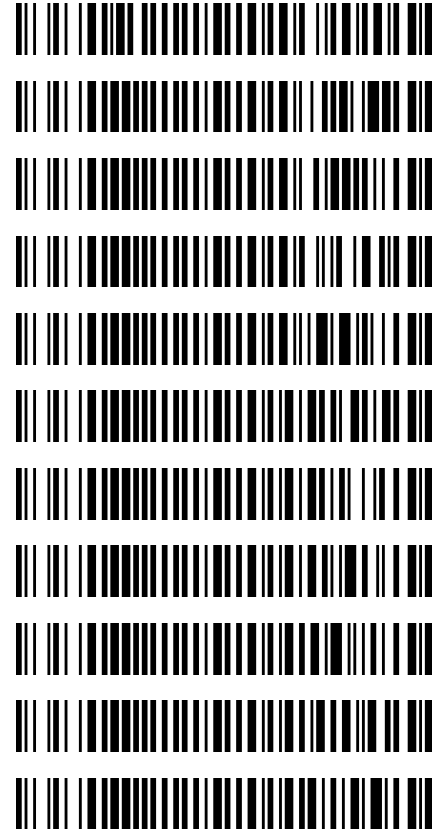
By Sarah Collins at 2:50 pm, Nov 12, 2024

TS

11/12/2024

**Worklist: 6968**

<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>
M2024-3974	2	BCK	AM 27 Blood THC Quant by LC-QQQ
P2024-2839	1	BCK	AM 27 Blood THC Quant by LC-QQQ
P2024-3101	1	UCK	AM 27 Blood THC Quant by LC-QQQ
P2024-3136	1	BCK	AM 27 Blood THC Quant by LC-QQQ
P2024-3164	1	BCK	AM 27 Blood THC Quant by LC-QQQ
P2024-3239	1	BCK	AM 27 Blood THC Quant by LC-QQQ
P2024-3245	1	BCK	AM 27 Blood THC Quant by LC-QQQ
P2024-3257	1	BCK	AM 27 Blood THC Quant by LC-QQQ
P2024-3261	1	BCK	AM 27 Blood THC Quant by LC-QQQ
P2024-3263	1	BCK	AM 27 Blood THC Quant by LC-QQQ
P2024-3288	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: 11/06/2024

Plate lot#: 240919

Mobile phase A: 0.1% Formic Acid in LCMS Water

Blank Blood Lot: Lampire 24C52816

Column: UCT Selectra DA 100 x 2.1mm 3um

Analyst: Tamara Salazar

Plate Retest Date: 03/19/2025

Mobile phase B: 0.1% Formic acid in Acetonitrile

Blank Urine Lot: POC021022

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, pipette 1000µL blood or 1000µL urine in wells of analytical (standards) plate. **Pipette ID: 42**
- ☒ 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) 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  $\geq 0.98$  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: THC-OH - 3-100--calibrator 1 dropped due to signal-to-noise

Analytical plate map

	1	2	3	4	5	6
A					P2024-3239-1	IS + QC_1
B				P2024-3101-1	P2024-3164-1	IS + Cal. 7
C				Urine Neg	P2024-3136-1	IS + Cal. 6
D				P2024-3288-1	P2024-2839-1	IS + Cal. 5
E				P2024-3263-1	M2024-3974-2	IS + Cal. 4
F				P2024-3261-1	Blood Neg	IS + Cal. 3
G				P2024-3257-1	IS + QC_2	IS + Cal. 2
H				P2024-3245-1	IS + QC_1	IS + Cal. 1

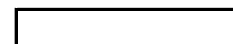
All wells to contain 100 µl of residual DMSO



SLE plate map

	1	2	3	4	5	6
A				P2024-3136-1	P2024-3239-1	IS + QC_1
B				P2024-3101-1	P2024-3164-1	IS + Cal. 7
C				Urine Neg	P2024-3136-1*	IS + Cal. 6
D				P2024-3288-1	P2024-2839-1	IS + Cal. 5
E				P2024-3263-1	M2024-3974-2	IS + Cal. 4
F				P2024-3261-1	Blood Neg	IS + Cal. 3
G				P2024-3257-1	IS + QC_2	IS + Cal. 2
H				P2024-3245-1	IS + QC_1	IS + Cal. 1

\*Sample moved during step 6 of the extraction due to clotting.





# AM #27 Cannabinoids Quant. Results

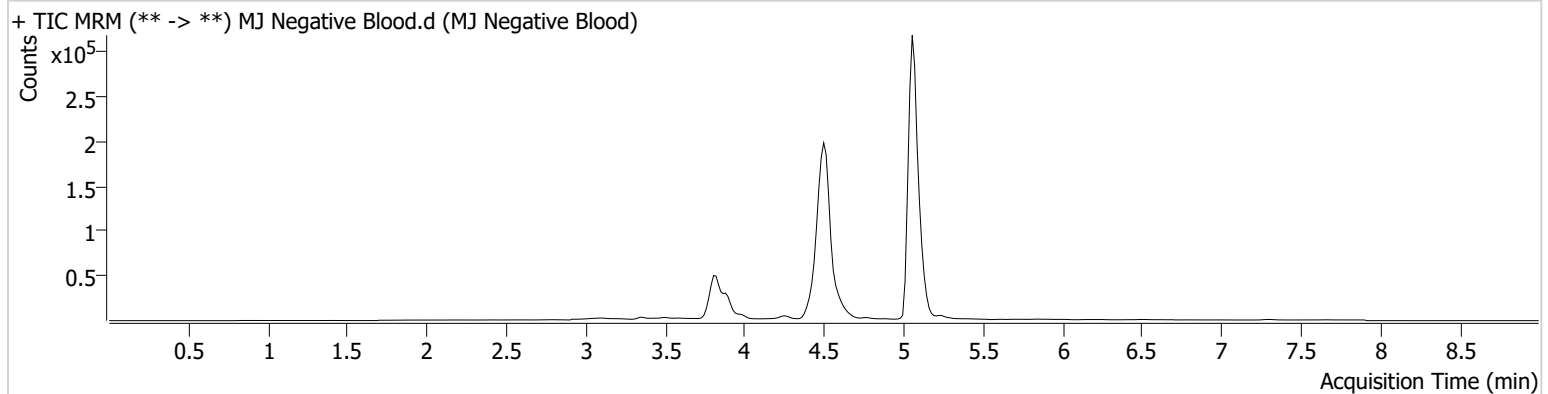
**Batch results** D:\MassHunter\Data\2024\AM 27 28\110624 AM 27 28 TS\QuantResults\AM 27.batch.bin  
**Calibration Last Update** 11/7/2024 6:32:08 AM

**Instrument** Falco (069901)  
**Type** Sample  
**Acq. Method** AM 27 Agilent Method.m  
**Sample Position** P3-F5  
**Injection Volume** 10  
**Acq. Date-Time** 11/6/2024 3:55:09 PM  
**Sample Info.**

**Data File** MJ Negative Blood.d  
**Sample** MJ Negative Blood  
**Operator** Tamara Salazar  
**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.

## Sample Chromatogram





# AM #27 Cannabinoids Quant. Results

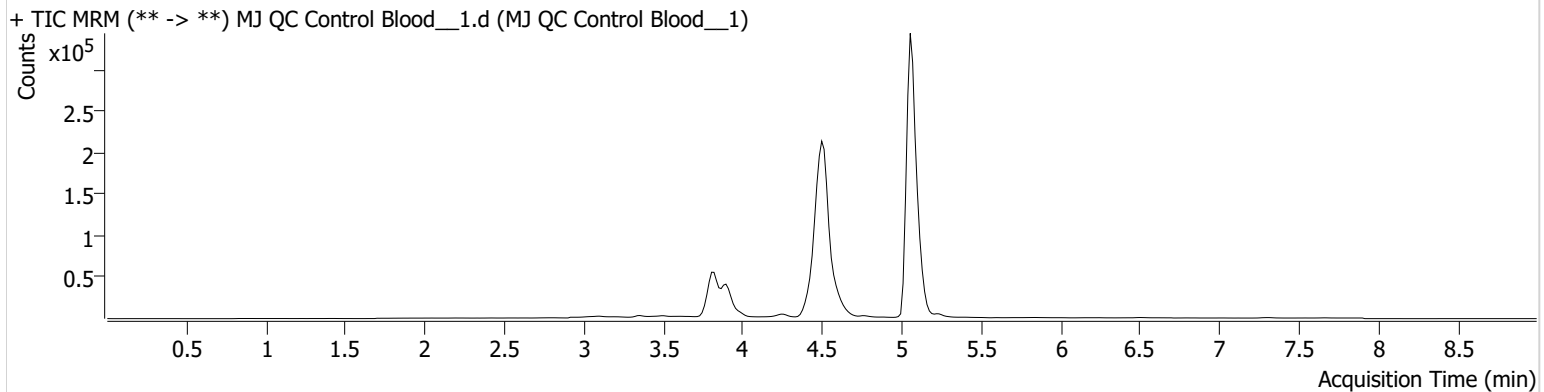
**Batch results** D:\MassHunter\Data\2024\AM 27 28\110624 AM 27 28 TS\QuantResults\AM 27.batch.bin  
**Calibration Last Update** 11/7/2024 6:32:08 AM

**Instrument** Falco (069901)  
**Type** QC  
**Acq. Method** AM 27 Agilent Method.m  
**Sample Position** P3-A6  
**Injection Volume** 10  
**Acq. Date-Time** 11/6/2024 3:28:56 PM  
**Sample Info.**

**Data File** MJ QC Control Blood\_\_1.d  
**Sample** MJ QC Control Blood\_\_1  
**Operator** Tamara Salazar  
**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.

## Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.060	63176	1643.64	27.9	∞	1326788	4.9355 ng/ml
THC-COOH	3.909	12298	∞	164.8	1495.26	95550	15.5724 ng/ml
THC-OH	3.820	22863	∞	13.7	82.00	220504	5.2024 ng/ml



# AM #27 Cannabinoids Quant. Results

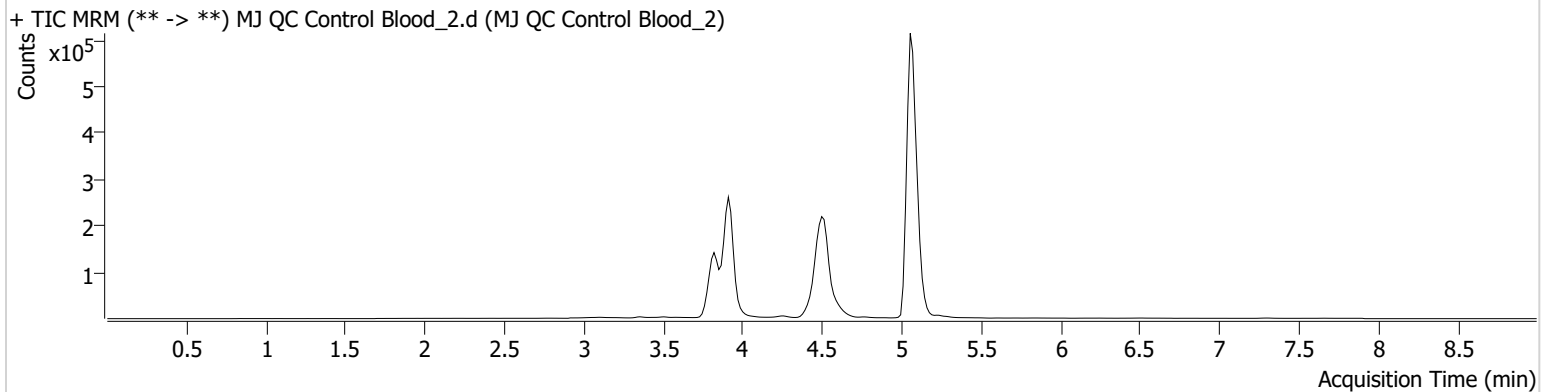
**Batch results** D:\MassHunter\Data\2024\AM 27 28\110624 AM 27 28 TS\QuantResults\AM 27.batch.bin  
**Calibration Last Update** 11/7/2024 6:32:08 AM

**Instrument** Falco (069901)  
**Type** QC  
**Acq. Method** AM 27 Agilent Method.m  
**Sample Position** P3-G5  
**Injection Volume** 10  
**Acq. Date-Time** 11/6/2024 10:01:58 PM  
**Sample Info.**

**Data File** MJ QC Control Blood\_2.d  
**Sample** MJ QC Control Blood\_2  
**Operator** Tamara Salazar  
**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.

## Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.060	1129862	∞	26.6	∞	1159270	99.8007 ng/ml
THC-COOH	3.909	178448	3936.80	165.7	7035.43	84373	253.3950 ng/ml
THC-OH	3.820	386020	∞	14.3	2182.23	199980	101.9622 ng/ml



# AM #27 Cannabinoids Quant. Results

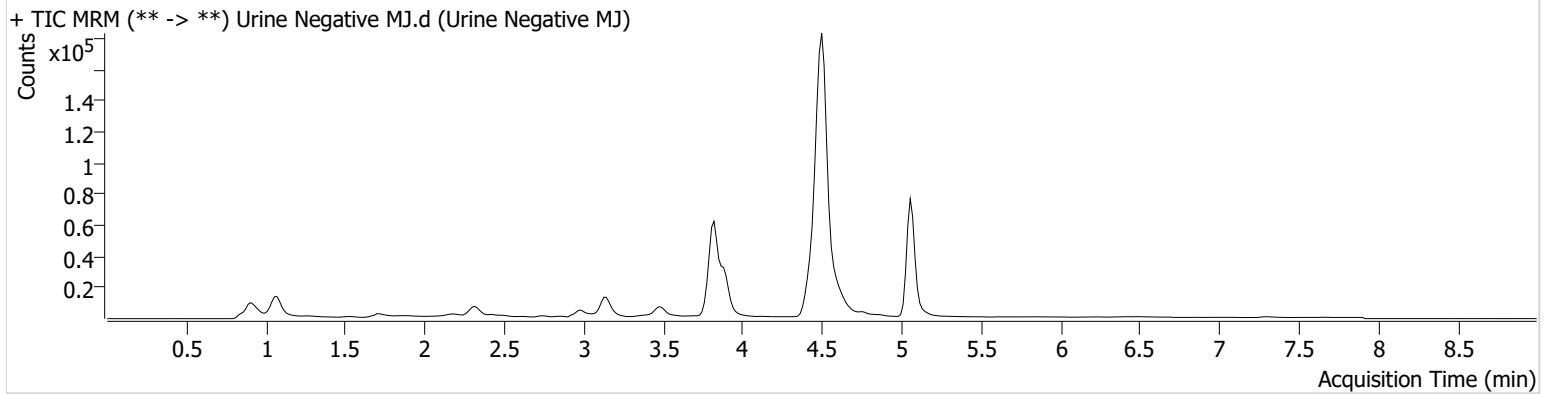
**Batch results** D:\MassHunter\Data\2024\AM 27 28\110624 AM 27 28 TS\QuantResults\AM 27.batch.bin  
**Calibration Last Update** 11/7/2024 6:32:08 AM

**Instrument** Falco (069901)  
**Type** Sample  
**Acq. Method** AM 27 Agilent Method.m  
**Sample Position** P3-C4  
**Injection Volume** 10  
**Acq. Date-Time** 11/6/2024 9:09:35 PM  
**Sample Info.**

**Data File** Urine Negative MJ.d  
**Sample** Urine Negative MJ  
**Operator** Tamara Salazar  
**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.

## Sample Chromatogram







# AM #27 Cannabinoids Quant. Results

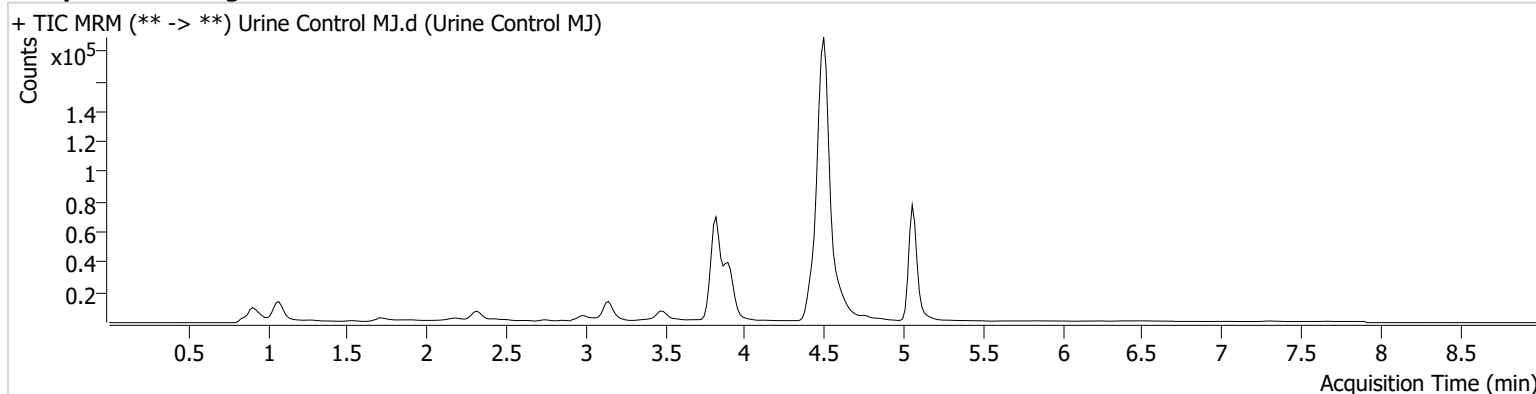
**Batch results** D:\MassHunter\Data\2024\AM 27 28\110624 AM 27 28 TS\QuantResults\AM 27.batch.bin  
**Calibration Last Update** 11/7/2024 6:32:08 AM

**Instrument** Falco (069901)  
**Type** Sample  
**Acq. Method** AM 27 Agilent Method.m  
**Sample Position** P3-H5  
**Injection Volume** 10  
**Acq. Date-Time** 11/6/2024 8:43:22 PM  
**Sample Info.**

**Data File** Urine Control MJ.d  
**Sample** Urine Control MJ  
**Operator** Tamara Salazar  
**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.

## Sample Chromatogram



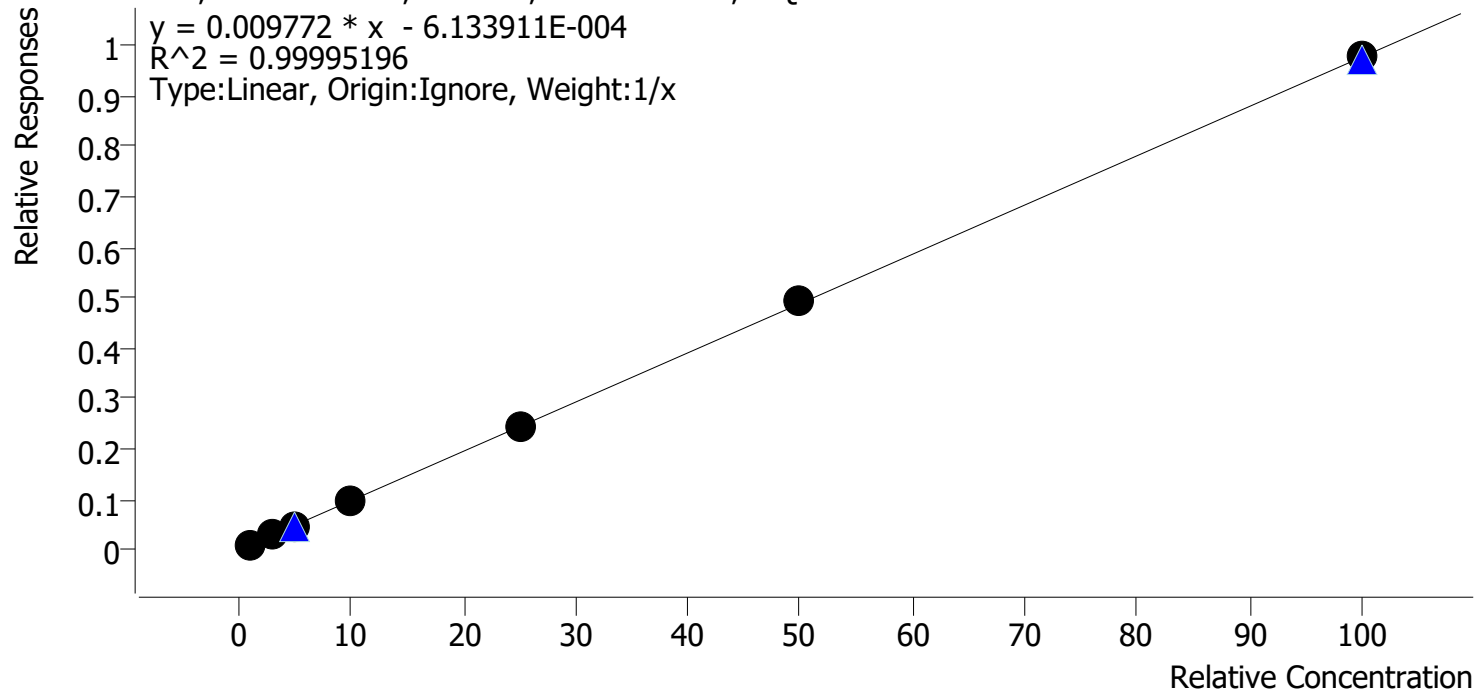
Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.060	12598	358.40	28.7	19.77	261214	4.9983 ng/ml
THC-COOH	3.909	11617	470.97	166.8	1156.72	92711	15.1642 ng/ml
THC-OH	3.820	25349	∞	13.9	57.27	251231	5.0548 ng/ml



# AM #27 Cannabinoids Quant. Calibration Curve Report

**Batch results** D:\MassHunter\Data\2024\AM 27 28\110624 AM 27 28 TS\QuantResults\AM 27.batch.bin  
**Last Cal. Update** 11/7/2024 6:32 AM  
**Analyst Name** ISP\Datastor  
**Analyte** THC **Internal Standard** THC-D3

THC - 7 Levels, 7 Levels Used, 7 Points, 7 Points Used, 2 QCs



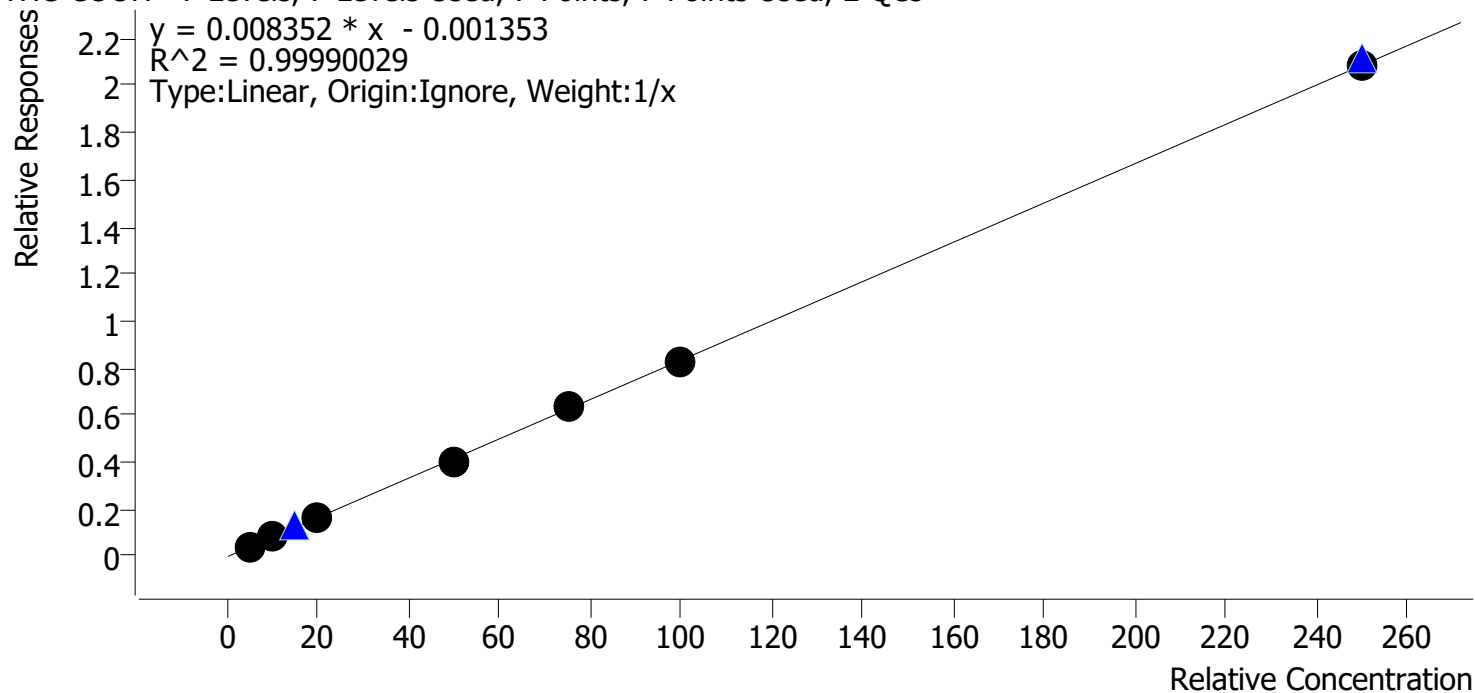
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1 MJ	1	✓	1.0	1.0	104.5
Cal 2 MJ	2	✓	3.0	3.0	98.9
Cal 3 MJ	3	✓	5.0	4.9	97.7
Cal 4 MJ	4	✓	10.0	9.9	98.6
Cal 5 MJ	5	✓	25.0	25.0	99.9
Cal 6 MJ	6	✓	50.0	50.2	100.4
Cal 7 MJ	7	✓	100.0	100.1	100.1



# AM #27 Cannabinoids Quant. Calibration Curve Report

**Batch results** D:\MassHunter\Data\2024\AM 27 28\110624 AM 27 28 TS\QuantResults\AM 27.batch.bin  
**Last Cal. Update** 11/7/2024 6:32 AM  
**Analyst Name** ISP\Datastor  
**Analyte** THC-COOH **Internal Standard** THC-COOH-D9

THC-COOH - 7 Levels, 7 Levels Used, 7 Points, 7 Points Used, 2 QCs



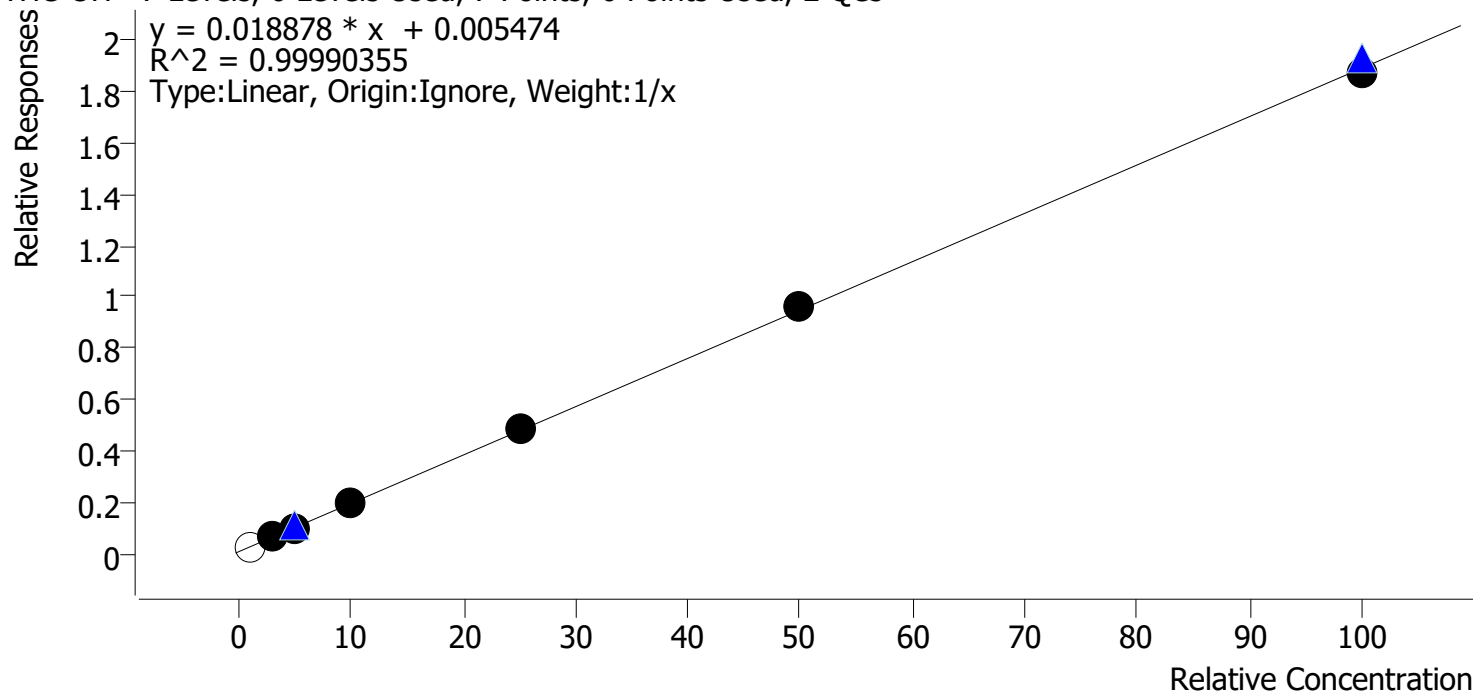
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1 MJ	1	✓	5.0	5.1	101.5
Cal 2 MJ	2	✓	10.0	10.0	99.9
Cal 3 MJ	3	✓	20.0	19.9	99.7
Cal 4 MJ	4	✓	50.0	48.9	97.9
Cal 5 MJ	5	✓	75.0	75.9	101.2
Cal 6 MJ	6	✓	100.0	99.5	99.5
Cal 7 MJ	7	✓	250.0	250.7	100.3



# AM #27 Cannabinoids Quant. Calibration Curve Report

**Batch results** D:\MassHunter\Data\2024\AM 27 28\110624 AM 27 28 TS\QuantResults\AM 27.batch.bin  
**Last Cal. Update** 11/7/2024 6:32 AM  
**Analyst Name** ISP\Datastor  
**Analyte** THC-OH **Internal Standard** THC-OH-D3

THC-OH - 7 Levels, 6 Levels Used, 7 Points, 6 Points Used, 2 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1 MJ	1	x	1.0	1.0	102.5
Cal 2 MJ	2	✓	3.0	2.9	98.0
Cal 3 MJ	3	✓	5.0	5.0	100.4
Cal 4 MJ	4	✓	10.0	10.0	100.3
Cal 5 MJ	5	✓	25.0	25.3	101.0
Cal 6 MJ	6	✓	50.0	50.5	100.9
Cal 7 MJ	7	✓	100.0	99.3	99.3



# AM #27 Cannabinoids Quant. Results

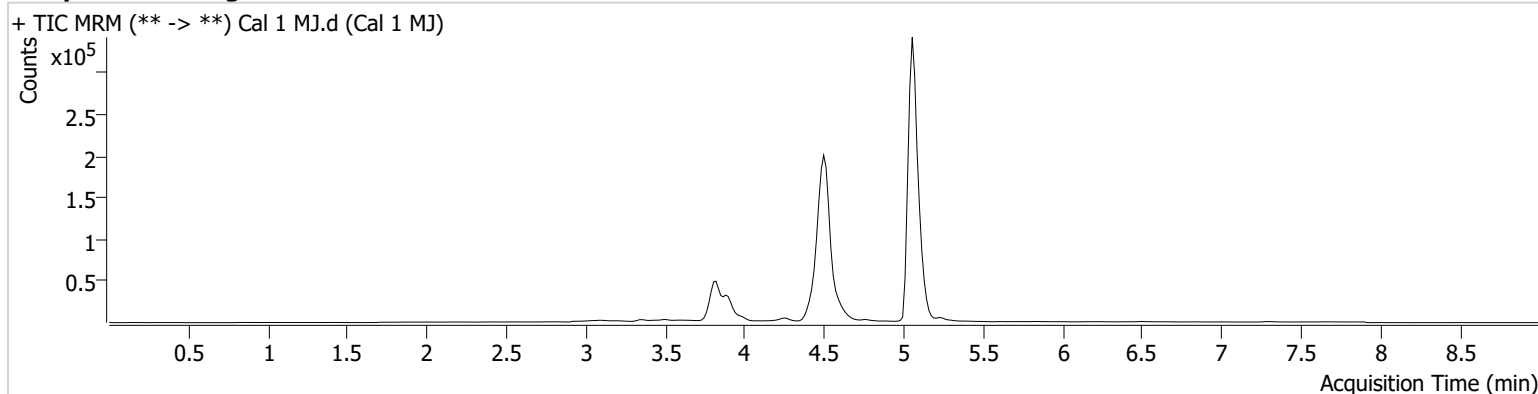
**Batch results** D:\MassHunter\Data\2024\AM 27 28\110624 AM 27 28 TS\QuantResults\AM 27.batch.bin  
**Calibration Last Update** 11/7/2024 6:32:08 AM

**Instrument** Falco (069901)  
**Type** Cal  
**Acq. Method** AM 27 Agilent Method.m  
**Sample Position** P3-H6  
**Injection Volume** 10  
**Acq. Date-Time** 11/6/2024 1:43:52 PM  
**Sample Info.**

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

## Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.060	13167	211.58	30.4	∞	1372060	1.0448 ng/ml
THC-COOH	3.909	3841	41.39	177.9	331.34	93586	5.0765 ng/ml
THC-OH	3.820	5089	∞	11.7	7.69 <b>Low</b>	204961	1.0252 ng/ml



# AM #27 Cannabinoids Quant. Results

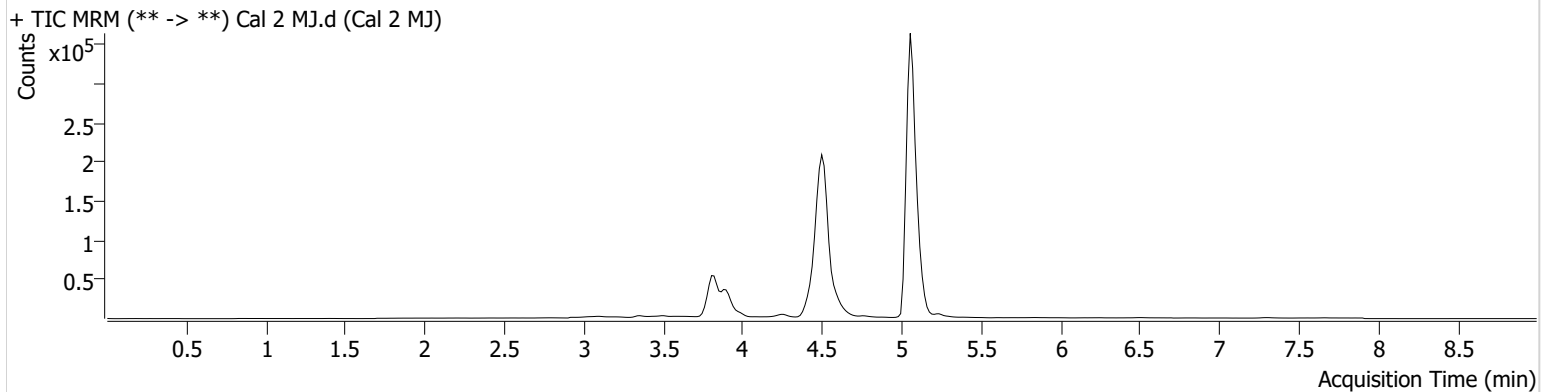
**Batch results** D:\MassHunter\Data\2024\AM 27 28\110624 AM 27 28 TS\QuantResults\AM 27.batch.bin  
**Calibration Last Update** 11/7/2024 6:32:08 AM

**Instrument** Falco (069901)  
**Type** Cal  
**Acq. Method** AM 27 Agilent Method.m  
**Sample Position** P3-G6  
**Injection Volume** 10  
**Acq. Date-Time** 11/6/2024 1:57:08 PM  
**Sample Info.**

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

## Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.060	40168	979.43	28.8	∞	1415362	2.9670 ng/ml
THC-COOH	3.909	7922	571.20	170.9	86.88	96483	9.9932 ng/ml
THC-OH	3.820	13448	∞	14.5	41.51	220543	2.9401 ng/ml



# AM #27 Cannabinoids Quant. Results

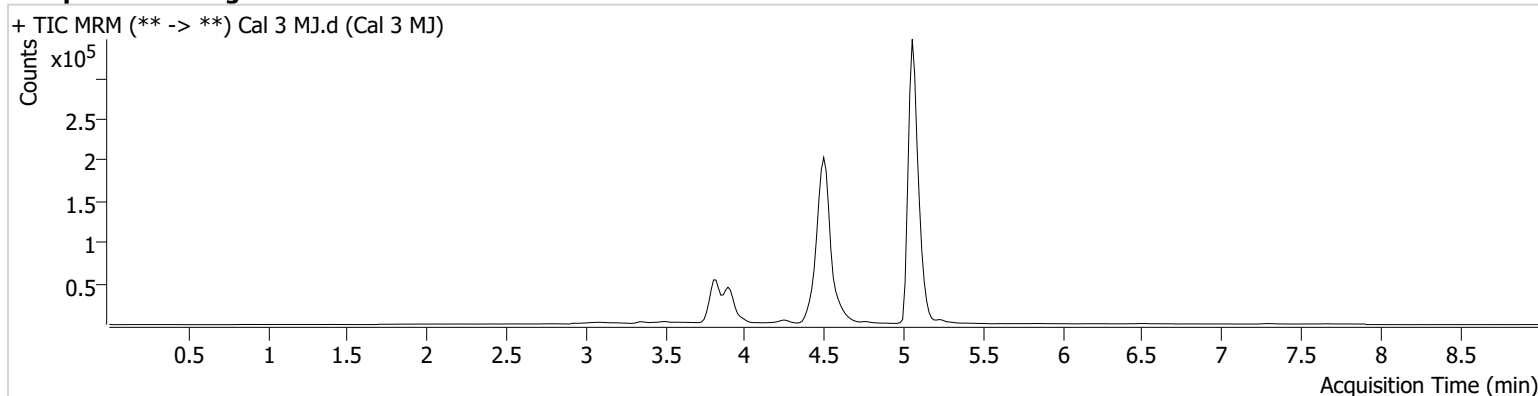
**Batch results** D:\MassHunter\Data\2024\AM 27 28\110624 AM 27 28 TS\QuantResults\AM 27.batch.bin  
**Calibration Last Update** 11/7/2024 6:32:08 AM

**Instrument** Falco (069901)  
**Type** Cal  
**Acq. Method** AM 27 Agilent Method.m  
**Sample Position** P3-F6  
**Injection Volume** 10  
**Acq. Date-Time** 11/6/2024 2:10:14 PM  
**Sample Info.**

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

## Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.060	63022	1121.73	28.2	133.58	1337536	4.8845 ng/ml
THC-COOH	3.909	15626	∞	174.1	755.34	94564	19.9469 ng/ml
THC-OH	3.820	21158	∞	14.0	87.07	210996	5.0219 ng/ml



# AM #27 Cannabinoids Quant. Results

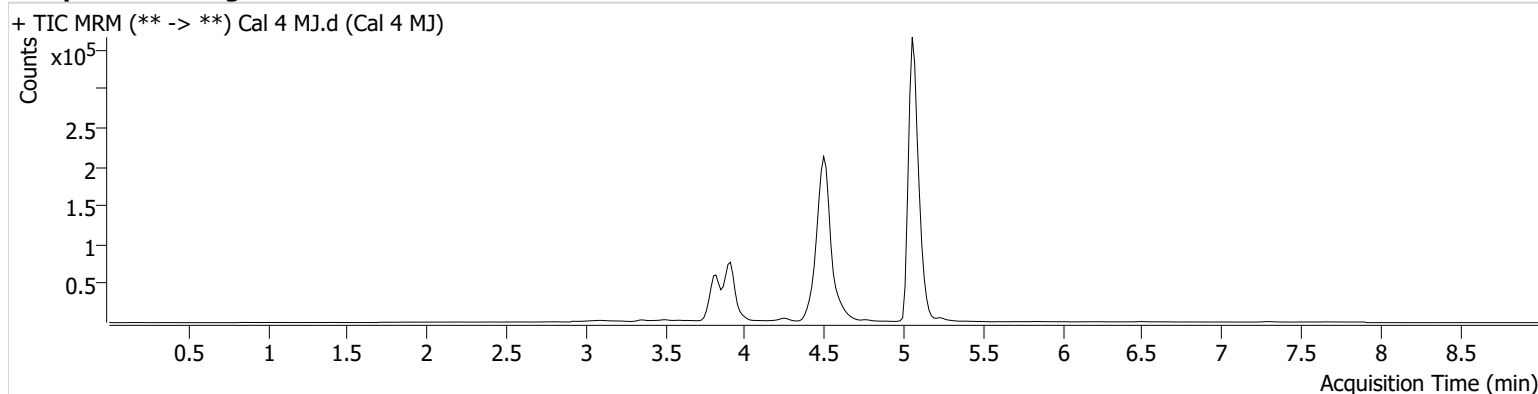
**Batch results** D:\MassHunter\Data\2024\AM 27 28\110624 AM 27 28 TS\QuantResults\AM 27.batch.bin  
**Calibration Last Update** 11/7/2024 6:32:08 AM

**Instrument** Falco (069901)  
**Type** Cal  
**Acq. Method** AM 27 Agilent Method.m  
**Sample Position** P3-E6  
**Injection Volume** 10  
**Acq. Date-Time** 11/6/2024 2:23:23 PM  
**Sample Info.**

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

## Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.075	129431	2356.90	27.1	154.41	1352079	9.8589 ng/ml
THC-COOH	3.909	39362	760.42	173.7	∞	96643	48.9276 ng/ml
THC-OH	3.820	41993	304.05	13.8	324.95	215533	10.0307 ng/ml





# AM #27 Cannabinoids Quant. Results

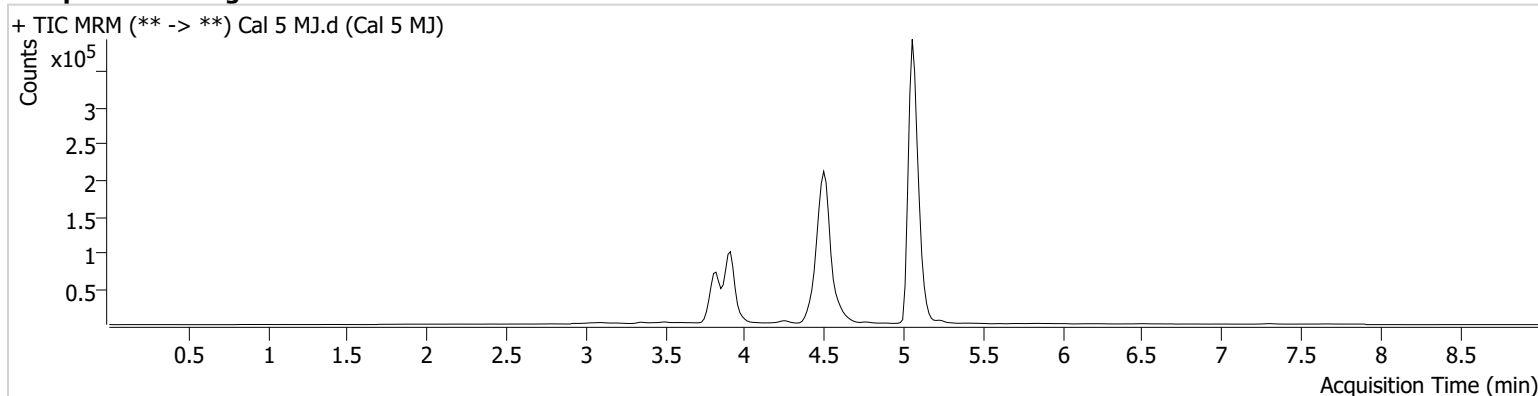
**Batch results** D:\MassHunter\Data\2024\AM 27 28\110624 AM 27 28 TS\QuantResults\AM 27.batch.bin  
**Calibration Last Update** 11/7/2024 6:32:08 AM

**Instrument** Falco (069901)  
**Type** Cal  
**Acq. Method** AM 27 Agilent Method.m  
**Sample Position** P3-D6  
**Injection Volume** 10  
**Acq. Date-Time** 11/6/2024 2:36:29 PM  
**Sample Info.**

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

## Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.060	299601	∞	26.2	2186.92	1231179	24.9652 ng/ml
THC-COOH	3.909	56378	1870.33	172.1	4719.35	89158	75.8736 ng/ml
THC-OH	3.820	99144	∞	14.0	2915.58	205566	25.2585 ng/ml



# AM #27 Cannabinoids Quant. Results

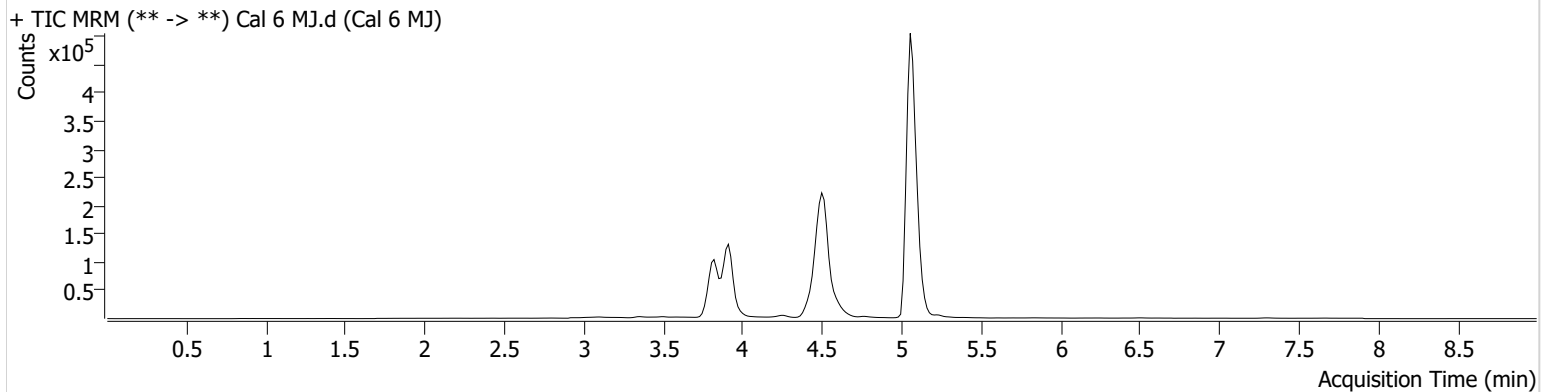
**Batch results** D:\MassHunter\Data\2024\AM 27 28\110624 AM 27 28 TS\QuantResults\AM 27.batch.bin  
**Calibration Last Update** 11/7/2024 6:32:08 AM

**Instrument** Falco (069901)  
**Type** Cal  
**Acq. Method** AM 27 Agilent Method.m  
**Sample Position** P3-C6  
**Injection Volume** 10  
**Acq. Date-Time** 11/6/2024 2:49:37 PM  
**Sample Info.**

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

## Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.060	635351	∞	26.2	1434.05	1296800	50.2000 ng/ml
THC-COOH	3.909	77412	2116.53	174.2	3419.60	93286	99.5191 ng/ml
THC-OH	3.820	212094	2400.10	14.1	968.81	221337	50.4701 ng/ml



# AM #27 Cannabinoids Quant. Results

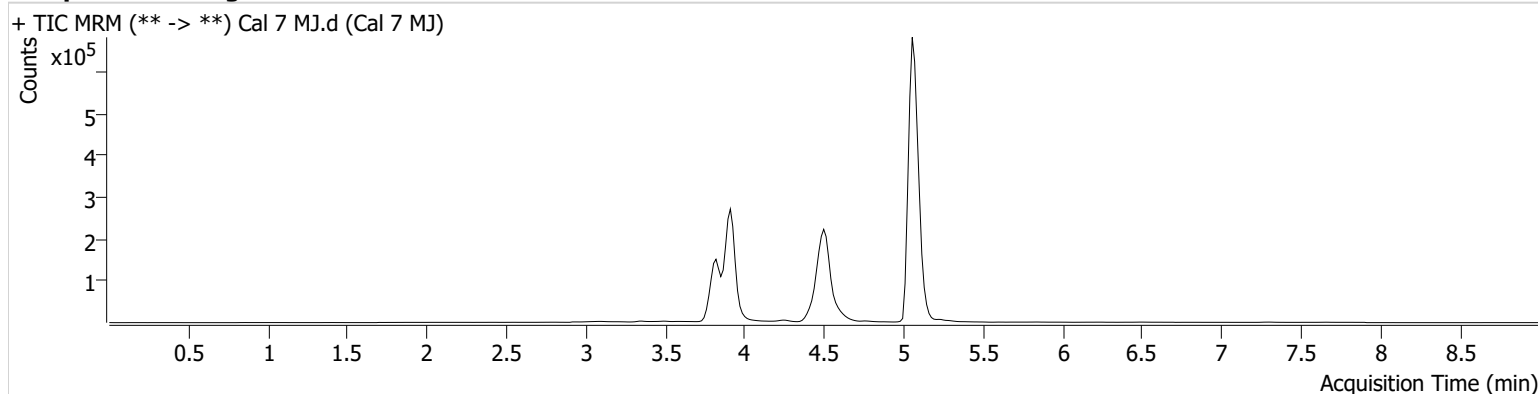
**Batch results** D:\MassHunter\Data\2024\AM 27 28\110624 AM 27 28 TS\QuantResults\AM 27.batch.bin  
**Calibration Last Update** 11/7/2024 6:32:08 AM

**Instrument** Falco (069901)  
**Type** Cal  
**Acq. Method** AM 27 Agilent Method.m  
**Sample Position** P3-B6  
**Injection Volume** 10  
**Acq. Date-Time** 11/6/2024 3:02:42 PM  
**Sample Info.**

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

## Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.060	1264908	∞	26.1	∞	1294212	100.0796 ng/ml
THC-COOH	3.909	187523	∞	164.2	10645.33	89631	250.6631 ng/ml
THC-OH	3.820	406124	∞	14.2	2183.19	216065	99.2788 ng/ml