MAB

12/11/2024

Worklist: 6995

LAB CASE	ITEM	ITEM TYPE	DESCRIPTION
C2024-2239	1	BCK	AM 27 Blood THC Quant by LC-QQQ
C2024-2240	1	BCK	AM 27 Blood THC Quant by LC-QQQ
C2024-2242	1	BCK	AM 27 Blood THC Quant by LC-QQQ
C2024-2258	1	ВСК	AM 27 Blood THC Quant by LC-QQQ
C2024-2261	1	BCK	AM 27 Blood THC Quant by LC-QQQ
C2024-2262	1	BCK	AM 27 Blood THC Quant by LC-QQQ
C2024-2269	1	BCK	AM 27 Blood THC Quant by LC-QQQ
C2024-2292	1	BCK	AM 27 Blood THC Quant by LC-QQQ
C2024-2297	2	BCK	AM 27 Blood THC Quant by LC-QQQ
C2024-2313	1	ВСК	AM 27 Blood THC Quant by LC-QQQ
C2024-2344	1	BCK	AM 27 Blood THC Quant by LC-QQQ
C2024-2357	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: <u>12/11/2024</u> 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: Mikel Buffaloe 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:

- \boxtimes 1. Check levels of mobile phases and needle wash refill as needed. Ensure waste is not full.
- \boxtimes 2. Ensure correct column is installed and begin mobile phase flow allow to equilibrate ~ 30 minutes.

Analytic:

- \boxtimes 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.
- Section 2007 Section 2017 Sect
- 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)
- \boxtimes 8. Wait 5 minutes.
- 9. Add 2.25mL MTBE. (Add in 3 increments of 750uL)
- \boxtimes 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)
- \boxtimes 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

- \boxtimes 1. Create batch and process data.
- \boxtimes 2. Make any necessary integration changes, Curve weighting of Linear 1/x with r² values ≥ 0.98 for each analyte
- 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
- \boxtimes 4. Did all QCs pass for each analyte? (if not, describe in comments section)
- \boxtimes 5. Enter QCs into control charting.
- ☑ 6. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS:

Supervised casework by AMN



	1	2	3	4	5	6
а	cal 1		2262-1			
b	cal 2	internal control blood high	2269-1			
с	cal 3	negative blood	2292-1			
d	cal 4	2239-1	2297-2			
е	cal 5	2240-1	2313-1			
f	cal 6	2242-1	2344-1			
g	cal 7	2258-1	2357-1			
h	Internal control (blood)	2261-1				

Plate position 3

c2024-___-

Batch resultsD:\MassHunter\Data\2024\am 27-28\121124\QuantResults\am27.batch.binCalibration Last Update12/12/2024 12:10:23 PM

Instrument Type Acq. Method Sample Position Injection Volume Acq. Date-Time	69679 QC thc quant 50 50.m P3-H1 10 12/11/2024 11:16:01	Data File Sample Operator Comment	mj ir mj ir Mike Only o interp are us
Acq. Date-Time	AM		ure

3.498

195376

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mj internal control blood low.d mj internal control blood low Mikel Buffaloe

Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for nterpretation 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 Info.

THC

Sample Chromatogram



26.49

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1463743

4.682 ng/m

Batch results D:\MassHunter\Data\2024\am 27-28\121124\QuantResults\am27.batch.bin Calibration Last Update 12/12/2024 12:10:23 PM

Instrum Type Acq. Me Sample Injectio Acq. Dat	ent thod Position n Volume te-Time	69679 Sample thc quant 50 50.m P3-C2 10 12/11/2024 11:22:35 AM	Data File Sample Operator Comment	mj negative blood.d mj negative blood Mikel Buffaloe 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
Sample	Info.			the methods
Sample	Chromatogra	m		
+ TIC MR \$1.75- 1.75- 1.25- 1 0.75- 0.5- 0.25-	M (** -> **) mj	negative blood.d (mj neg	gative blood)	
	02 04 0	6 0 8 1 1 2 1 4	16 18 2 22	24 26 28 3 32 34 36 38 4 42 44 46 48 5 52 54

Acquisition Time (min)

Batch resultsD:\MassHunter\Data\2024\am 27-28\121124\QuantResults\am27.batch.binCalibration Last Update12/12/2024 12:10:23 PM

Instrument Type Acq. Method Sample Position Injection Volume Acq. Date-Time Sample Info.	69679 QC thc quant 50 50.m P3-B2 10 12/11/2024 2:27:23 PM	Data File Sample Operator Comment
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mj internal blood control high end of run.d mj internal blood control high end of run Mikel Buffaloe

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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



NRA **Compound Calibration Report** Agilent Trusted Ans D:\MassHunter\Data\2024\am 27-28\121124\QuantResults\am27.batch.bin **Batch results** Last Cal. Update 12/12/2024 12:10 PM **Analyst Name** ISP\datastor Analyte THC **Internal Standard** THC-d3 THC - 7 Levels, 7 Levels Used, 7 Points, 7 Points Used, 2 QCs y = 0.031159 * x - 0.012411R^2 = 0.99888043 **Relative Responses** 3.25-Type:Linear, Origin:Ignore, Weight:1/x 3-2.75 2.5 2.25^{-} 2- 1.75^{-} 1.5 1.25^{-} 1-0.75 0.5 0.25 0--0.25 10 20 40 50 60 70 80 Ó 30 90 100

Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
mj cal 1	1	V	1.0	1.2	115.5
mj cal 2	2	V	3.0	3.0	98.4
mj cal 3	3	V	5.0	4.7	94.9
mj cal 4	4	~	10.0	9.3	93.4
mj cal 5	5	~	25.0	24.3	97.4
mj cal 6	6	~	50.0	48.9	97.9
mj cal 7	7	~	100.0	102.5	102.5

Relative Concentration

Compound Calibration Report Agilent Trusted Ans **Batch results** D:\MassHunter\Data\2024\am 27-28\121124\QuantResults\am27.batch.bin Last Cal. Update 12/12/2024 12:10 PM **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 Relative Responses y = 0.005700 * x - 0.008100 $R^2 = 0.99860365$ 1.4 Type:Linear, Origin:Ignore, Weight:1/x 1.2 1-0.8 0.6 0.4 0.2 0-40 60 Ó 20 80 100 180 200 220 120 140 160 240 260 **Relative Concentration** Sample Enabled Expected **Final Concentration** Level Accuracy Concentration V 112.8 mj cal 1 1 5.0 5.6 r 2 mj cal 2 10.0 9.5 95.1

V

V

r

r

r

20.0

50.0

75.0

100.0

250.0

19.5

46.8

72.5

103.3

252.7

97.4

93.6

96.7

103.3

101.1

3

4

5

6

7

mj cal 3

mj cal 4

mj cal 5

mj cal 6

mj cal 7

NAB **Compound Calibration Report** Agilent Trusted Ans D:\MassHunter\Data\2024\am 27-28\121124\QuantResults\am27.batch.bin **Batch results** Last Cal. Update 12/12/2024 12:10 PM **Analyst Name** ISP\datastor Analyte THC-OH THC-OH-d3 **Internal Standard** THC-OH - 7 Levels, 7 Levels Used, 7 Points, 7 Points Used, 2 QCs Kelative Responses y = 0.003452 * x - 0.001679 R^2 = 0.99852288 Type:Linear, Origin:Ignore, Weight:1/x 2-1.5 1-0.5 0-10 20 40 50 60 70 80 Ó 30 90 100 **Relative Concentration**

Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
mj cal 1	1	~	1.0	1.2	119.9
mj cal 2	2	~	3.0	2.9	96.9
mj cal 3	3	~	5.0	4.7	94.1
mj cal 4	4	~	10.0	9.2	91.7
mj cal 5	5	~	25.0	23.6	94.5
mj cal 6	6	~	50.0	50.5	101.1
mj cal 7	7	~	100.0	101.9	101.9

Batch results D:\MassHunter\Data\2024\am 27-28\121124\QuantResults\am27.batch.bin Calibration Last Update 12/12/2024 12:10:23 PM

Instrument Type Acq. Method Sample Position Injection Volume Acq. Date-Time	69679 Cal thc quant 50 50.m P3-A1 10 12/11/2024 10:29:53	Data File Sample Operator Comment	 mj cal 1.d mj cal 1 Mikel Buffaloe 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
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Sample Info.

the methods



Batch resultsD:\MassHunter\Data\2024\am 27-28\121124\QuantResults\am27.batch.binCalibration Last Update12/12/2024 12:10:23 PM

Instrument Type Acq. Method Sample Position Injection Volume Acq. Date-Time	69679 Cal thc quant 50 50.m P3-B1 10 12/11/2024 10:36:37 AM	Data File Sample Operator Comment	mj cal 2.d mj cal 2 Mikel Buffaloe 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
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Sample Info.

the methods



Batch results D:\MassHunter\Data\2024\am 27-28\121124\QuantResults\am27.batch.bin Calibration Last Update 12/12/2024 12:10:23 PM

Instrument Type Acq. Method Sample Position Injection Volume Acq. Date-Time	69679 Cal thc quant 50 50.m P3-C1 10 12/11/2024 10:43:11 AM	Data File Sample Operator Comment	mj cal 3.d mj cal 3 Mikel Buffaloe 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
Sample Info.			the methods

Sample Chromatogram



26.46

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1397042

4.746 ng/ml

THC

3.498

189244

124099.3

Batch results D:\MassHunter\Data\2024\am 27-28\121124\QuantResults\am27.batch.bin Calibration Last Update 12/12/2024 12:10:23 PM

446410 1367137102

306360.0

TypeCalAcq. Methodthc quant 50 50.mSample PositionP3-D1Injection Volume10Acq. Date-Time12/11/2024 10:49:45	Sample Operator Comment	mj cal 4.d mj cal 4 Mikel Buffaloe Only drugs and co interpretation pur are used by labor
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oncentrations listed on the laboratory report itself are appropriate to be used for poses. Any drugs or values included in the notes but not included on the report atory personnel to make determinations/reach conclusions within the confines of



Sample Chromatogram

Sample Info.

THC

3.498



26.14

1490.7

1603043

9.335 ng/ml

Batch resultsD:\MassHunter\Data\2024\am 27-28\121124\QuantResults\am27.batch.binCalibration Last Update12/12/2024 12:10:23 PM

Instrument Type Acq. Method Sample Position Injection Volume Acq. Date-Time	69679 Cal thc quant 50 50.m P3-E1 10 12/11/2024 10:56:19 AM	Data File Sample Operator Comment	mj cal 5.d mj cal 5 Mikel Buffaloe 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
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Sample Info.

the methods



D:\MassHunter\Data\2024\am 27-28\121124\QuantResults\am27.batch.bin **Batch results** Calibration Last Update 12/12/2024 12:10:23 PM

12 14 16 18

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Instrument Type Acq. Method Sample Position Injection Volume Acq. Date-Time Sample Info.	69679 Cal thc quant 50 50.m P3-F1 10 12/11/2024 11:02:53 AM	Data File Sample Operator Comment	mj cal 6.d mj cal 6 Mikel Buffaloe 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 Chromatogr + TIC MRM (** -> **) n \$	am nj cal 6.d (mj cal 6)	Λ	



22 24 26 28

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32 34 36 38

4

2

42 44 46 48

5

5.2 5.4

1.5 1.25 1-0.75 0.5 0.25

0.2 0.4 0.6 0.8

D:\MassHunter\Data\2024\am 27-28\121124\QuantResults\am27.batch.bin **Batch results** Calibration Last Update 12/12/2024 12:10:23 PM

364680.0

Instrumen Type Acq. Metho Sample Po Injection V Acq. Date- Sample In	nt od sition /olume Time fo.	69679 Cal thc quant 50 P3-G1 10 12/11/2024 AM	9 50.m 11:09:27	Data File Sample Operator Comment	mj cal 7 mj cal 7 Mikel Bu Only drug interpreta are used b the metho	d uffaloe s and concentratic tion purposes. Any by laboratory pers	ns listed on the laboral drugs or values includ onnel to make determir	tory report itself are ap led in the notes but no nations/reach conclusic	propriate to be used for t included on the report ons within the confines of					
Sample Ch	Sample Chromatogram													
+ TIC MRM (\$106- 0 2.5- 2- 1.5- 1- 0.5-	(** -> **) mj 0.2 0.4 0.	cal 7.d (mj cal 6 0.8 1 1	7) 2 1.4 1.6		2 2.4 2.6	2.8 3 3.2	3.4 3.6 3.8 4	1 1 4.2 4.4 4.6 A	4.8 5 5.2 5.4 cquisition Time (min)					
Name		RT	Resp.	S/N	Ratio	S/I	ISTD	Final Co	nc.					
Thc-oh Thc-cooh Thc	1	.991 2.062 3.498	1249645 1507089 4946846 26	17524.2 14592.5 535645488 364680.0	780.54 264.92 27.31	ہ ہ 28977	2 3571125 2 1052111 2 1554554	101.855 ng/ml 252.743 ng/ml 102.523 ng/ml						