REVIEWED
By Sarah Collins at 7:30 am, Nov 30, 2023

TS 11/28/2023

Worklist: 6566

LAB_CASE	ITEM	ITEM_TYPE	DESCRIPTION
M2023-4441	3	UCK	AM 6 Urine GHB
P2023-3101	1	UCK	AM 6 Urine GHB

TS

AM 6: Urine GHB Screening Extraction

Extraction Date: 11/28/2023
Analyst: Tamara Salazar
Mobile phase A: 0.1% Formic Acid in Water
0.1% formic acid in methanol
Mobile phase B: 0.1% Formic Acid in MeOH
0.1% formic acid in water
Blank Urine Lot: POC021011
Column: Phenomenex Phenyl Hexyl (4.6x50mm, 2.6um)
LCMS-QQQ ID:069901

Pre-Analytic:

☒ 1. *Positive Control Working Solution Preparation Instructions:*
- *Working Solution:* Preparation of 200,000 ng/mL Positive Control Working Solution: Add 200µL of GHB 1 mg/mL stock solution to 800µL negative urine.

☒ 2. Check levels of mobile phases and needle wash refill as needed. Ensure waste is not full.

☒ 3. Ensure correct column is installed and begin mobile phase flow allow to equilibrate ~ 30 minutes.

Analytic:

☒ 1. Remove working solutions, controls, and samples from cold storage. Place on tube rocker at ambient temp for approx. 10 minutes.

☒ 2. Label centrifuge tubes for positive control, negative control and case samples.

☒ 3. Pipette positive control into corresponding centrifuge tube.
- Preparation of 10,000 ng/mL Positive Control: Add 10µL of GHB 200,000 ng/mL working solution to 190µL negative urine. *Working Solution Lot: WS082123*

☒ 4. Pipette negative controls (for negative control, 200µL urine will be added to the appropriate tube) into corresponding centrifuge tube.

☒ 5. Add 200µL urine to each centrifuge tube for case samples.

☒ 6. Add 100µL of the GHB-D6 Internal Standard Working Solution to each tube.

☒ 7. Add 900µL of 0.1% formic acid in methanol to each tube. Vortex.

☒ 8. Centrifuge at ~3400 rpm for 15 minutes.

☒ 9. Label ALS or LCMS vials for positive control, negative control, and case samples. Place insert in all vials.

☒ 10. Add 100µL 0.1% formic acid in water to each vial insert.

☒ 11. Transfer 10µL of sample from each centrifuge tube to the corresponding vial insert (avoid disturbing the pellet at the bottom). Vortex.

Post-Analytic

☒ 1. Open quantitation software and create a new quantitation batch.

☒ 2. Using the positive control, a 1-point calibration curve will be established. The curve will be set to linear, non-weighted and origin set to force.

☒ 3. If a sample gives a response that is greater than 10,000 ng/mL, a statement on the report will be included saying that preliminary testing indicated a possible presence of an elevated level of GHB and that it is recommended that the sample be sent to a private lab for quantitation. If a sample gives a response between 7,000 and 10,000 ng/mL, an inconclusive statement can be added to the report.

☒ 4. The S/N for samples and controls at and over 10,000 ng/mL must be 5 or greater

☒ 5. Case samples and negative controls will generally be considered negative if the calculated concentration is less than 7,000 ng/mL.

☒ 6. Central File Packet to include: LIMS Worklist, Method Checklist, Working solution prep sheet(s), Calibration and Control Reports

COMMENTS:

TS

Idaho State Police Forensic Services

AM #6 Screening for Gamma-Hydroxybutyrate (GHB) in Urine

GHB-D6 Internal Standard Solution

1mL of GHB-D6 0.1mg/mL stock solution to 4mL methanol.

Component	***Source***	***Source Lot Number***	***Expiration Date***
GHB-D6	Cerilliant	FE07031801	09/30/2023
Methanol	Fisher	220776	-
Prepared:	04/04/2023		
Prepared By:	Tamara Salazar		
Expires:	*Expiration date not applicable per AM #19.		

200,000 ng/mL Positive Control Working Solution (WS082123)

200uL of GHB 1mg/mL stock to 800uL negative urine.

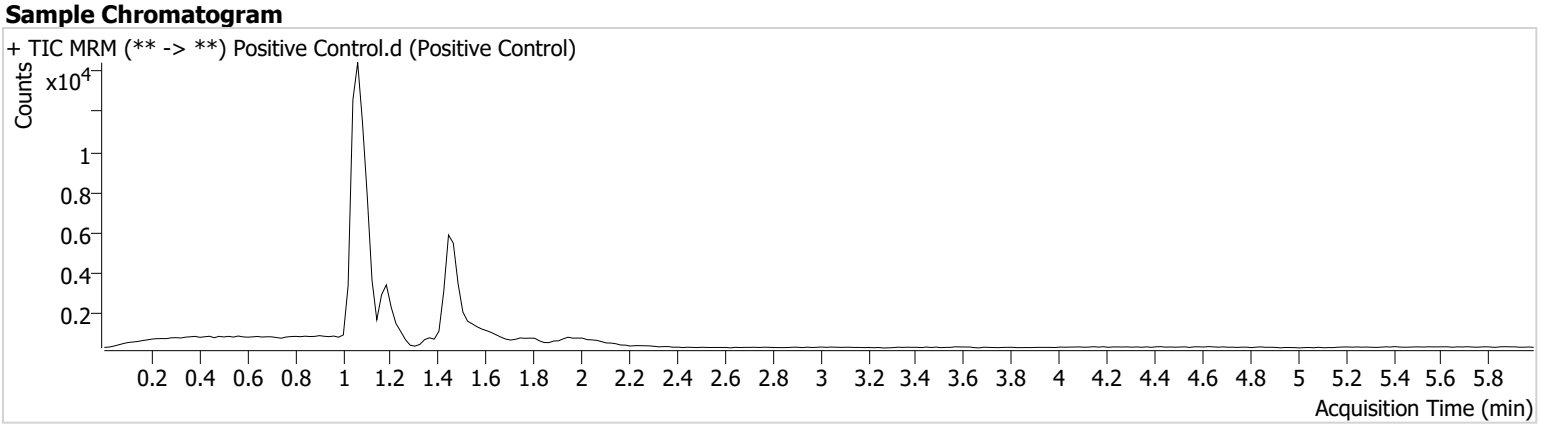
Component	***Source***	***Source Lot Number***	***Expiration Date***
GHB	Cerilliant	FE04111903	05/31/2024
Negative Urine	-	POC021022	
Prepared:	08/21/2023		
Prepared By:	Tamara Salazar		
Expires:	02/21/2024		

AM #6 GHB Screen Results TS

Batch results D:\MassHunter\Data\2023\AM 6\112723 AM 6 TS\QuantResults\AM 6.batch.bin
Calibration Last Update 11/28/2023 3:54:26 PM

Instrument	Falco (069901)	**Data File**	Positive Control.d
Type	Cal	**Sample**	Positive Control
Acq. Method	GHB urine screen.m	**Operator**	Tamara Salazar
Sample Position	P3-A1	**Comment**	
Injection Volume	2.5		
Acq. Date-Time	11/28/2023 3:14:05 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
GHB	1.466	8784	297.21	29.67	11094	10000.0000

AM #6 GHB Screen Results TS

Batch results	D:\MassHunter\Data\2023\AM 6\112723 AM 6 TS\QuantResults\AM 6.batch.bin
Calibration Last Update	11/28/2023 3:54:26 PM

Instrument	Falco (069901)	**Data File**	Negative Control.d
Type	Sample	**Sample**	Negative Control
Acq. Method	GHB urine screen.m	**Operator**	Tamara Salazar
Sample Position	P3-A2	**Comment**	
Injection Volume	2.5		
Acq. Date-Time	11/28/2023 3:20:43 PM		
Sample Info.			

Sample Chromatogram