

**REVIEWED**

By Celena Shrum at 10:48 am, Jun 20, 2024

TS

6/18/2024

**Worklist: 6847**

<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>
C2024-0973	3	UCK	AM 6 Urine GHB
M2022-0484	6	UCK	AM 6 Urine GHB
M2024-2127	3	UCK	AM 6 Urine GHB



TS

## AM 6: Urine GHB Screening Extraction

Extraction Date: 06/18/2024

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:** POC021022

**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 20,000 ng/mL working solution to 190µL negative urine. *Working Solution Lot: WS061824*
- ☒ 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.*

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>	<i>Expiration Date</i>
GHB-D6	Cerilliant	FE1012220	02/28/2028
Methanol	Fisher	222621	-
Prepared:	06/18/2024		
Prepared By:	Tamara Salazar		
Expires:	06/18/2024		

### 200,000 ng/mL Positive Control Working Solution (WS061824)

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

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>	<i>Expiration Date</i>
GHB	Cerilliant	FE03012210	07/31/2027
Negative Urine	-	POC021022	
Prepared:	06/18/2024		
Prepared By:	Tamara Salazar		
Expires:	12/18/2024		

TS

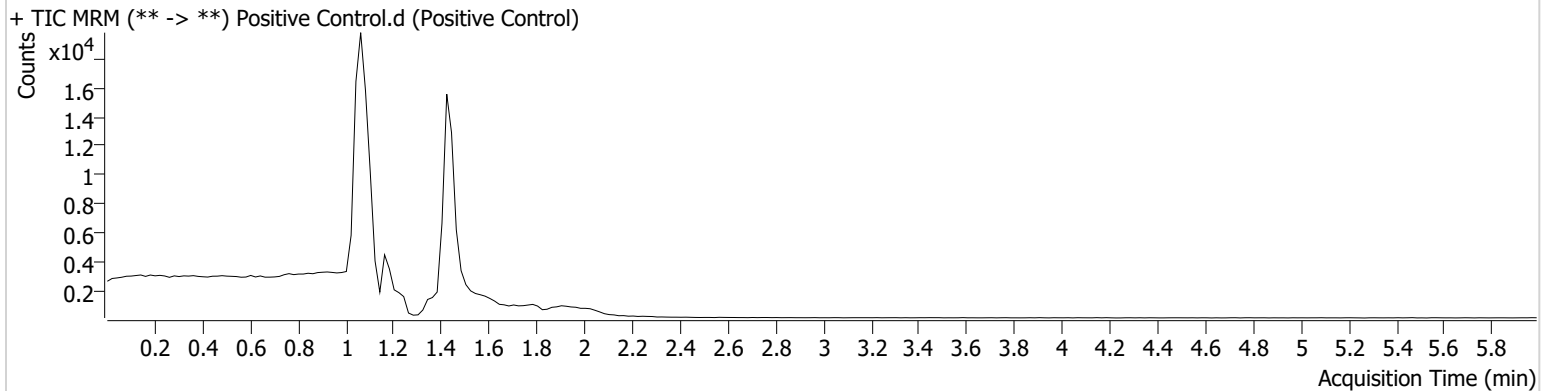


# AM #6 GHB Screen Results

**Batch results** D:\MassHunter\Data\2024\AM 6\061824 AM 6 TS\QuantResults\AM 6 TS.batch.bin  
**Calibration Last Update** 6/18/2024 3:59:14 PM

<b>Instrument</b>	Falco (069901)	<b>Data File</b>	Positive Control.d
<b>Type</b>	Cal	<b>Sample</b>	Positive Control
<b>Acq. Method</b>	GHB urine screen.m	<b>Operator</b>	Tamara Salazar
<b>Sample Position</b>	P3-A1	<b>Comment</b>	
<b>Injection Volume</b>	2.5		
<b>Acq. Date-Time</b>	6/18/2024 9:56:55 AM		

## Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
GHB	1.426	24102	127.95	200.27	32206	10000.0000

TS

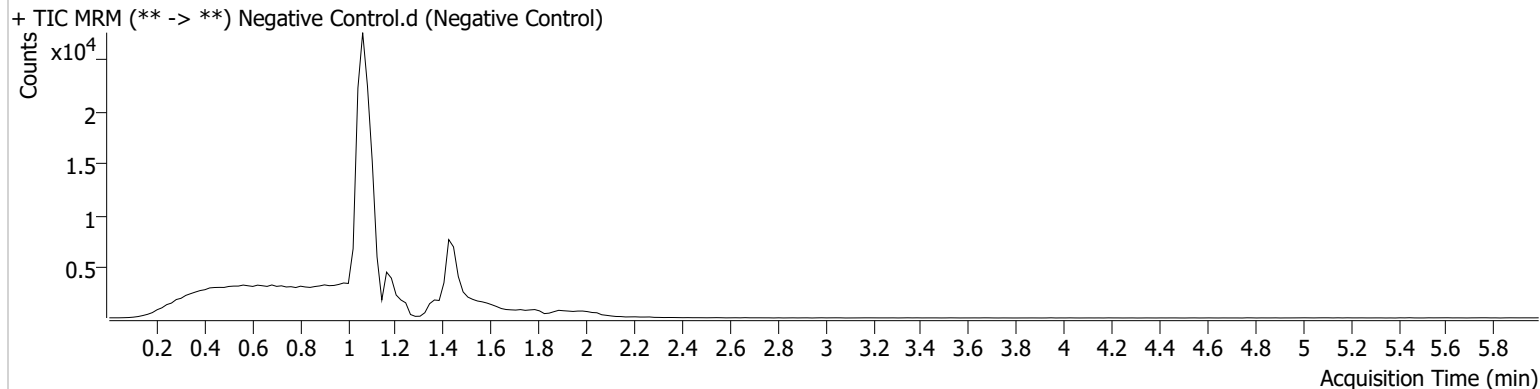


# AM #6 GHB Screen Results

**Batch results** D:\MassHunter\Data\2024\AM 6\061824 AM 6 TS\QuantResults\AM 6 TS.batch.bin  
**Calibration Last Update** 6/18/2024 3:59:14 PM

<b>Instrument</b>	Falco (069901)	<b>Data File</b>	Negative Control.d
<b>Type</b>	Sample	<b>Sample</b>	Negative Control
<b>Acq. Method</b>	GHB urine screen.m	<b>Operator</b>	Tamara Salazar
<b>Sample Position</b>	P3-A2	<b>Comment</b>	
<b>Injection Volume</b>	2.5		
<b>Acq. Date-Time</b>	6/18/2024 10:03:34 AM		

## Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
GHB	1.426	4927	75.02	18.24	36430	1807.1785