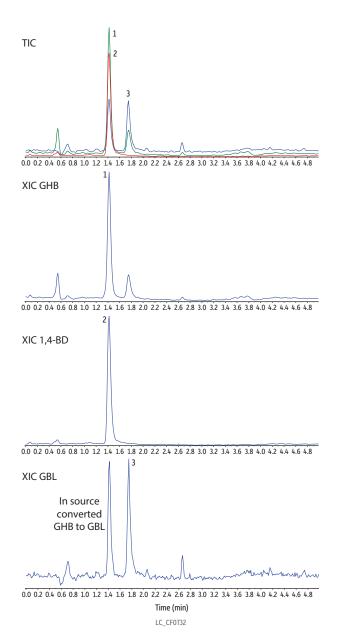
GHB and Related Compounds in Human Blood by LC-MS/MS

- Simultaneous analysis of GHB, GBL, and 1,4-BD in whole blood.
- Fast 5-minute cycle time.
- Separation of actual GBL and GBL from GHB in-source conversion.
- Sufficient sensitivity to measure endogenous GHB and identify exogenous drug ingestion.



Notes

 Column
 Force C18 (cat.# 963431E)
 Detector
 MS/MS

 Dimensions:
 100 mm x 3.0 mm ID
 Ion Mode:
 ESI+

 Particle Size:
 3 m
 Mode:
 Mode:
 MPLC

 Pore Size:
 100 Å
 Instrument
 HPLC

Force C18 EXP guard column cartridge 5 mm, 3.0 mm ID, 3 μm (cat.# 963450253) 30 $^{\circ} C$

Temp.: 30 °C

Sample

Diluent: Water

Conc.: 500 ng/mL

Inj. Vol.: 10 μL

Guard Column:

Mobile Phase
A: 0.5% Formic acid in water
B: 0.5% Formic acid in methanol

Time (min)	Flow (mL/min)	%A	%B
0.00	0.7	95	5
0.50	0.7	95	5
3.00	0.7	50	50
3.01	0.7	95	5
5.00	0.7	95	5

 $100~\mu L$ of whole human blood was fortified at $50~\mu g/m L$ with GHB, GBL, 1,4-BD, and GHB-DG (IS) using 5 μL of 1 mg/mL solutions. The blood was precipitated with $380~\mu L$ methanol. The sample was then vortexed at 1000~rpm for 10 seconds and centrifuged at 3000~rpm for 10 minutes at 10 °C. $50~\mu L$ of the supernatant was removed and diluted to 1 mL with water. The sample was then vortexed and subjected to LC-MS/MS analysis. (Internal standard not shown on chromatogram.)

		Precursor	Product
Peaks	tr (min)	lon	lon
1. γ-Hydroxybutyric acid (GHB)	1.42	105.2	87.0
2. 1,4-Butanediol (1,4-BD)	1.42	91.0	55.0
3. γ-Butyrolactone (GBL)	1.75	87.0	45.0

