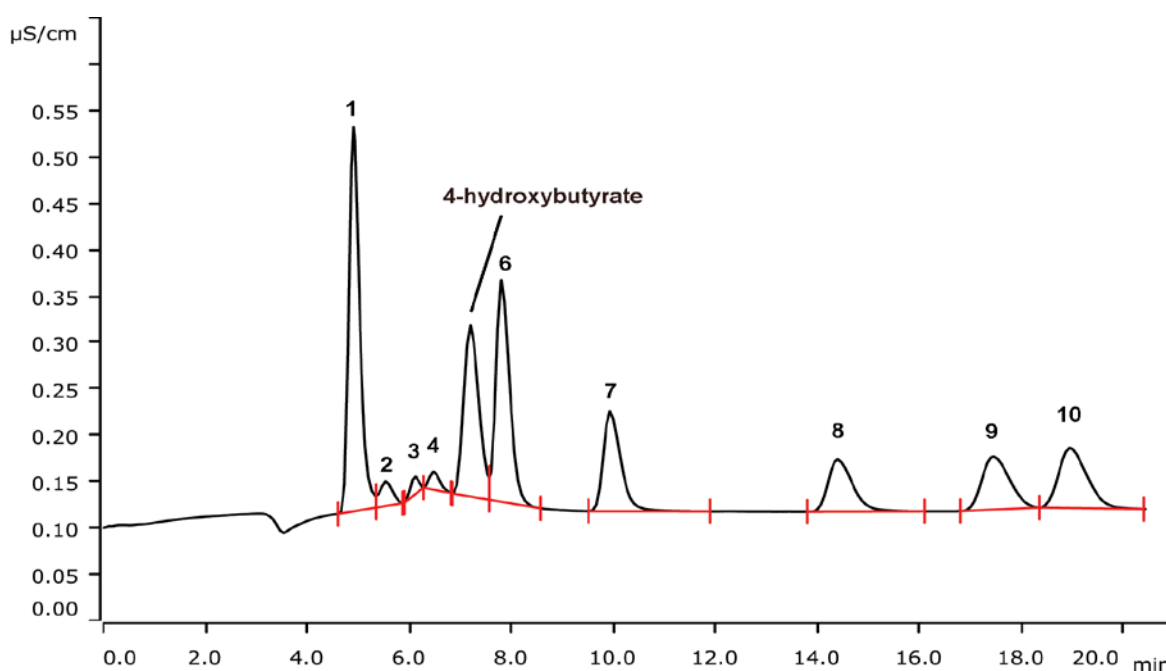


# 4-Hydroxybutyrate besides standard anions and organic acids



4-Hydroxybutyric acid (GHB) is used as a psychoactive drug. In many jurisdictions, it is illegal. GHB can be determined by suppressed anion chromatography. On a Metrosep A Supp 16 - 250/4.0 column, GHB is separated from standard anions as well as from glycolate, formate, and acetate.

## Results

Anion	Concentration [mg/L]	Anion	Concentration [mg/L]
1 Fluoride	0.5	6 Chloride	0.5
2 Glycolate	0.1	7 Nitrite	0.5
3 Formate	0.1	8 Bromide	0.5
4 Acetate	0.1	9 Nitrate	0.5
4-Hydroxybutyrate	2.0	10 Sulfate	0.5

### Sample

Standard

### Sample preparation

Direct injection.

### Columns

Metrosep A Supp 16 - 250/4.0	6.1031.430
Metrosep A Supp 16 Guard/4.0	6.1031.500

### Solutions

Eluent	10.0 mmol/L sodium carbonate 2.0 mmol/L sodium hydrogen carbonate
Suppressor regenerant	100 mmol/L <u>sulfuric acid</u>
Rinsing solution	STREAM

### Analysis

Conductivity detection after sequential suppression

### Instrumentation

930 Compact IC Flex Oven/SeS/PP/Deg	2.930.2560
IC Conductivity Detector	2.850.9010
858 Professional Sample Processor	2.858.0010
800 Dosino	2.800.0010
MSM Rotor A	6.2832.000
Adaptor sleeve for Suppressor Vario	6.2842.020
IC equipment: MiPT	6.5330.180

### Parameters

Flow rate	0.8 mL/min
Injection volume (MiPT)	20 µL
P <sub>max</sub>	20 MPa
Recording time	21 min
Column temperature	45 °C



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