

Gamma Hydroxy Butyric Acid (GHBA)

Determination of GHBA using μ HPLC and Laser Induced Fluorescence Detection

Instruments:

HPLC pump: Agilent 1100 series + LC Packings
Acurate™ Flow Splitter
Injector: LC packings Famos Automated Injector
Detector: Picometrics ZETALIF detector
Laser: He-Cad Laser, 442 nm, 40 mW

Sample:

Standard solution of GHBA in anhydrous Toluene containing Quinuclidine. Samples are diluted in water.

Reagents:

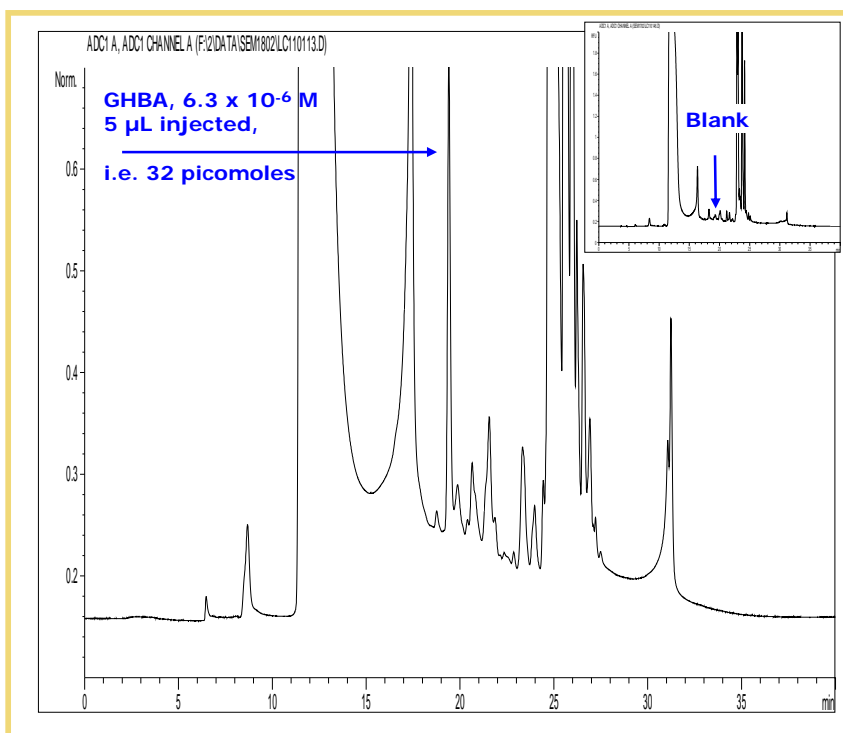
Derivatization agent: DBDCOCl in anhydrous Toluene*.
* (4-(N-Chloroformylmethyl-N-Methyl) Amino-7-N,N-Dimethylaminosulphonyl-2,1,3 Benzoxadiazole)

Methods:

Mobile Phase: Gradient Water/Acetonitrile from 10% Acetonitrile (0-5 mn), to 100% (15 mn), plate at 100% (15 to 25 mn), decrease to 10% (26 mn) and stay at 10% up to 40 mn.
Flow rate: 4 μ L/min
Injection volume: 5 μ L
Column: micro column LC Packings PepMap™, C18, 3 μ m, 300 μ m ID x 15 cm
Detector Capillary: 75 μ m ID

Limit of Detection*:
 1.3×10^{-8} M (66 femtomoles)

* Estimated for a S/N of 3



Source: Picometrics application lab. 08/2002