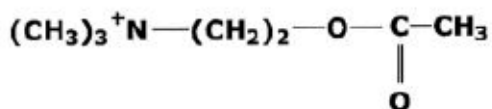


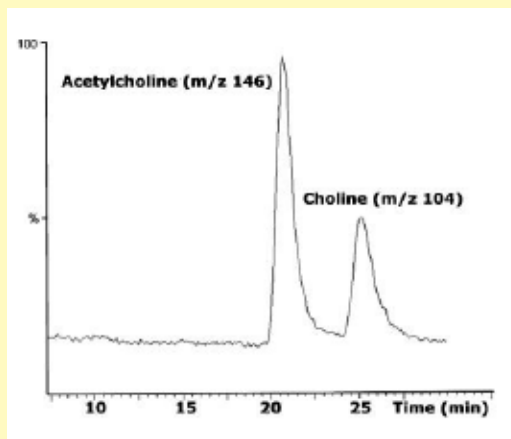
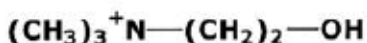
Quaternary Amines: Choline & Acetylcholine by LC-MS

A sensitive and specific method for the determination of Acetylcholine and its main decomposition product, Choline by LC-MS

Acetylcholine



Choline



Method Conditions

Column:	Cogent UDC Cholesterol™, 4mm, 100Å.
Catalog No.:	69069-7.5P
Dimensions:	4.6 x 75 mm
Mobile phase:	90:10 acetonitrile/DI water + 0.5% formic acid (pH 3.48)
Flow rate:	0.5 mL/minute
Injection Volume:	1 µL
Samples:	Acetylcholine (m/z 146) Choline (m/z 104) (5 mg/mL (free base) of each dissolved in the mobile phase)
Detection:	Mass Spec: Atmospheric Pressure Chemical Ionization in positive mode: APCI+ Single Ion Monitoring

Discussion

These challenging quaternary amine compounds are well retained using a simple acetonitrile/DI water mobile phase with a low percentage of formic acid. A high level of the organic solvent helps to eliminate the problems associated with low aqueous solubility of some samples as well improves the sensitivity of MS detection. The separation presented can be used for analysis of low level quaternary amine compounds in biological and environmental samples. The impact of biological matrices needs to be evaluated. Note: No ion pairing reagent required in the above isocratic method. For reproducible results (low %RSD) please use pre-mixed mobile phase and control the temperature of the column.

For more information visit www.MTC-USA.com

Cat. No.	Description
69069-7.5P	Cogent UDC-Cholesterol™ HPLC Column, 100Å 4µm, 4.6mm x 75mm, Standard End Fittings.