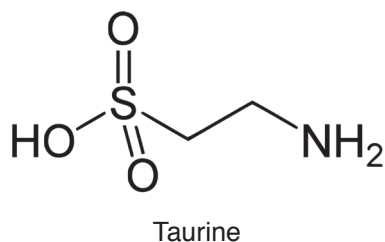
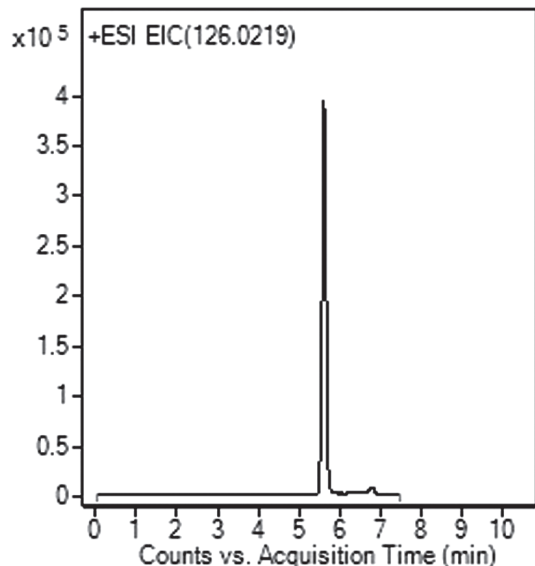


Taurine

Retention of polar sulfonate compound



Method Conditions

Column: Cogent Diamond Hydride™, 4µm, 100Å

Catalog No.: 70000-15P-2

Dimensions: 2.1 x 150 mm

Solvents: A: DI H₂O / 0.1% formic acid (v/v)

B: Acetonitrile / 0.1% formic acid (v/v)

Gradient:	time (min.)	%B
	0	95
	1	95
	6	30
	7	30
	8	95

Post Time: 3 min (3.3 column volumes)

Injection vol.: 2µL

Flow rate: 0.4 mL/min

Detection: ESI - POS - Agilent 6210 MSD TOF mass spectrometer

Sample: 10mg/L taurine reference standard in diluent of 50/50 solvent A/solvent B.

Peak: 1. Taurine, m/z 126.0219 [M+H]⁺

t₀: 0.9 min

Discussion

As a highly polar compound, taurine is difficult to retain by conventional reversed phase chromatography. The peak shape and retention obtained here however are excellent. The Cogent Diamond Hydride column is shown to be highly suitable for the analysis. This LC-MS method is suitable as a starting point for analyses of taurine in a variety of samples such as beverages or even biological matrices.

Note: Taurine is added to many popular energy drinks today. It is found naturally in animal tissues and is a major constituent of bile.