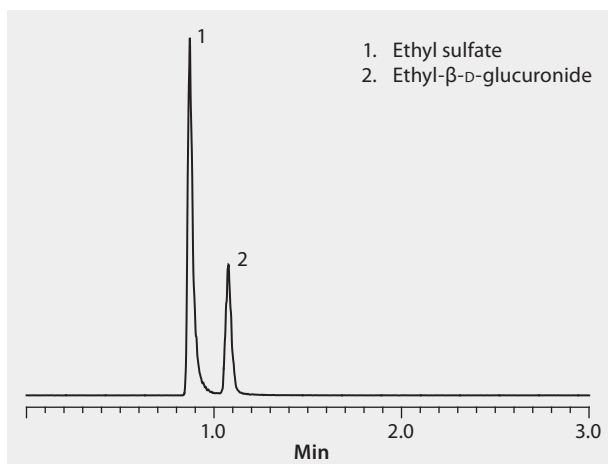


LC/MS Analysis of Ethanol Metabolites Ethyl Sulfate and Ethyl-β-D-Glucuronide on Ascentis® Express RP-Amide

The compounds ethyl sulfate and ethyl-β-D-glucuronide are metabolites of ethanol. Their analysis is of clinical interest as biomarkers or indicators of alcohol-induced liver disease (ALD). The HPLC analysis of these compounds using reversed-phase mode using conventional C18 chemistries suffers from poor retention due to the compounds' polar nature. However, polar compound retention is improved by using the Ascentis Express RP-Amide, a polar-embedded phase, while still keeping the reversed-phase mechanism. Cerilliant CRMs provided reliable quantification.

market focus Clinical; Forensics and Toxicology
 column Ascentis Express RP-Amide, 10 cm x 2.1 mm I.D., 2.7 μm particles (53913-U)
 mobile phase 0.1% (v/v) formic acid in water
 flow rate 0.4 mL/min
 pressure 3066 psi (211 bar)
 column temp. 35 °C
 detector MS, ESI(-), combined XIC, 125.0 m/z, 221.1 m/z
 injection 2 μL
 sample 2 μg/mL in 99:1, water:methanol
 Application No. [G006401](#)



Related Products

analytical column

Ascentis® Express RP-Amide, 2.7 Micron HPLC Column ([Supelco 53913-U](#))

mobile phase component

Formic acid ([Fluka 14265](#))

Water ([Fluka 14263](#))

standard

Ethyl-β-D-glucuronide ([Cerilliant E-015](#))

Ethyl sulfate sodium salt ([Cerilliant E-064](#))