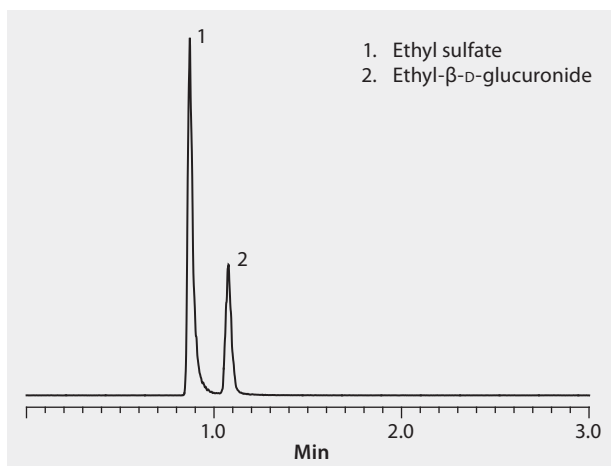


LC/MS Analysis of Ethanol Metabolites Ethyl Sulfate and Ethyl-β-D-Glucuronide on Ascentis® Express RP-Amide

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](#))