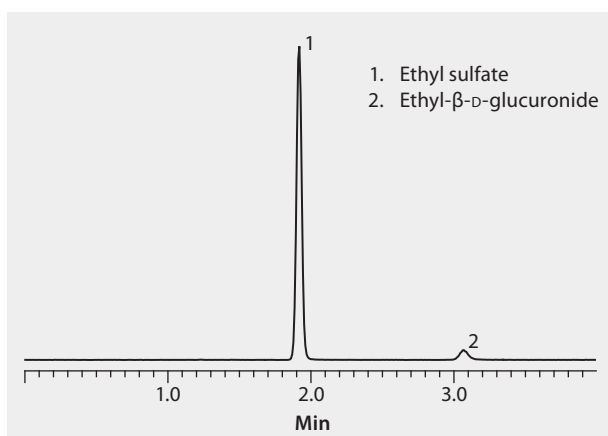


LC/MS Analysis of Ethanol Metabolites Ethyl Sulfate and Ethyl- β -D-Glucuronide on Ascentis® Express OH5

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 on C18 columns suffers from poor retention due to the compounds' polar nature. However, by using HILIC mode on an Ascentis Express OH5 column, both retention and MS-compatibility are improved. Cerilliant CRMs provided reliable quantification.

market focus	Clinical; Forensics and Toxicology
column	Ascentis Express OH5, 10 cm x 2.1 mm I.D., 2.7 μ m particles (53757-U)
mobile phase	5 mM ammonium formate in 95:5, acetonitrile:water, adjusted to pH 4.0 with formic acid
flow rate	0.4 mL/min
pressure	1200 psi (83 bar)
column temp.	35 °C
detector	MS, ESI(-), combined XIC, 125.0 m/z, 221.1 m/z
injection	10 μ L
sample	ethyl sulfate (2 μ g/mL), ethyl- β -D-glucuronide (20 μ g/mL) in 98:2, acetonitrile:methanol
Application No.	G006400



Related Products

analytical column

Ascentis® Express OH5, 2.7 Micron HPLC Column ([Supelco 53757-U](#))

mobile phase component

Acetonitrile ([Fluka 14261](#))

Ammonium formate ([Fluka 14266](#))

Formic acid ([Fluka 14265](#))

Water ([Fluka 14263](#))

standard

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

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