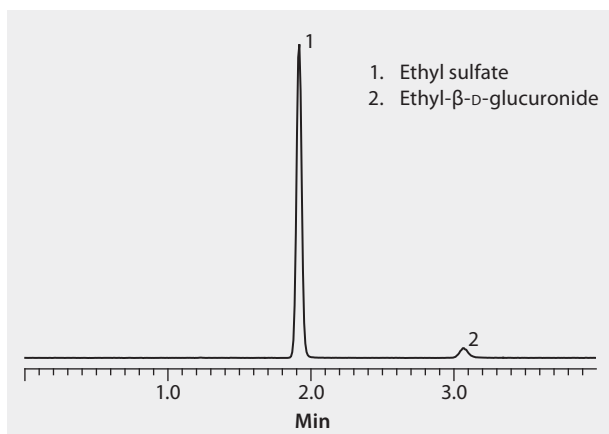


LC/MS Analysis of Ethanol Metabolites Ethyl Sulfate and Ethyl-β-D-Glucuronide on Ascentis® Express OH5

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 μm 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 μL
 sample ethyl sulfate (2 μg/mL), ethyl-β-D-glucuronide (20 μg/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](#))