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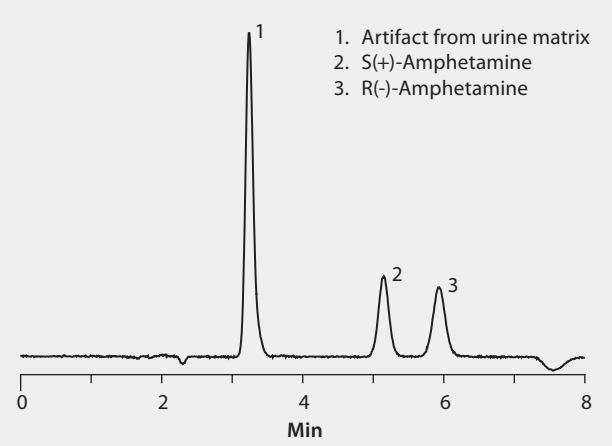
LC/MS Analysis of Amphetamine Enantiomers on Astec CHIROBIOTIC® V2 in Urine after Solid Phase Extraction (SPE) using Supel™-Select SCX

Shown here is the chiral separation of amphetamine enantiomers under MS-compatible conditions on Astec CHIROBIOTIC V2 after extraction from urine using Supel-Select SCX SPE 96-well plates. Fluka CHROMASOLV mobile phase solvents and additives were used to supply low background interference and low particulate contaminants for robust, trouble-free operation. Cerilliant CRMs provided reliable identification and quantification.

market focus	Forensics and Toxicology
sample preparation	SPE (Solid Phase Extraction)
sample/matrix	1 mL of synthetic urine spiked with 50 ng/mL of each enantiomer
SPE well plate	Supel-Select SCX, 96-well plate, 30 mg/well (575664-U)
condition	1 mL 1% formic acid in acetonitrile followed by 1 mL water
sample addition	1 mL spiked urine sample
washing	2 mL water followed by 1 mL 5 mM ammonium phosphate dibasic in 50% methanol followed by 1 mL 25% v/v methanol in water
elution	1 mL 10% w/v ammonium hydroxide in acetonitrile
eluate post-treatment	evaporate to dryness under nitrogen at 40 °C, reconstitute in 1 mL mobile phase
column	Astec CHIROBIOTIC V2, 15 cm x 4.6 mm I.D., 5 µm particles (15023AST)
mobile phase	[A] methanol; [B] water; [C] acetic acid; [D] ammonium hydroxide; (95:5:0.1:0.02, A:B:C:D)
flow rate	1 mL/min
pressure	1220 psi (84 bar)
column temp.	20 °C
detector	MS, ESI(+),SIR m/z 150.1
injection	2 µL
Application No.	G006432



Related Products

analytical column
Astec® CHIROBIOTIC® V2 Chiral HPLC Column (Supelco 15023AST)
eluent
Ammonium phosphate dibasic (Aldrich 379980)
mobile phase component
Acetic acid (Fluka 49199)
Ammonium hydroxide solution (Fluka 44273)
Methanol (Fluka 14262)
Water (Fluka 14263)
SPE tube or plate
Supel™-Select SCX SPE 96-well Plate (Supelco 575664-U)
standard
(±)-Amphetamine solution (Cerilliant A-007)
Surine™ Negative Urine Control (Cerilliant S-020)