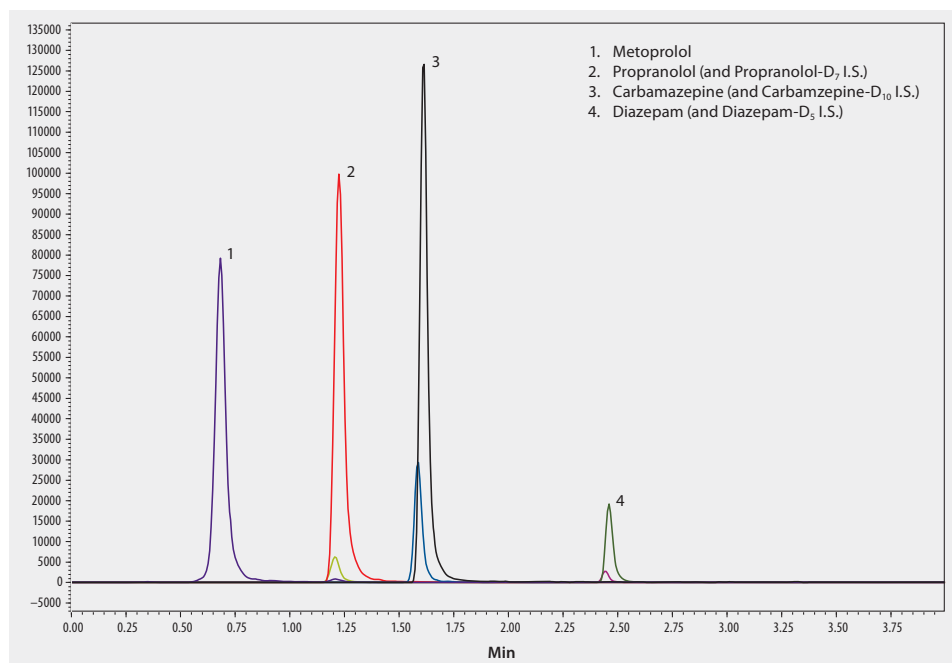


UHPLC/MS Analysis of Drugs in Whole Blood on Titan™ C18 after Biocompatible Solid Phase Microextraction (BioSPME) using SPME LC Tips with C18 Chemistry

Solid phase microextraction (SPME) is a viable technique for microsampling of biological matrices for subsequent HPLC, UHPLC, and LC/MS analysis. The fibers allow direct sampling without additional sample treatment. The concentration effect of the fibers provides increased analyte sensitivity compared to other techniques. Shown here is the separation of a set of drugs on a Titan C18 UHPLC column after using SPME LC tips to extract them from whole blood. Fluka CHROMASOLV solvents provided clean, robust operation. Cerilliant CRMs provided reliable quantification.

market focus	Clinical; Pharmaceutical (small molecule)
sample preparation	Solid Phase Microextraction
sample/matrix	whole blood spiked at 10 ng/mL
SPME fiber	SPME LC Tips (57234-U)
extraction	whole blood, 15 minutes
desorption process	methanol 30 minutes
column	Titan C18, 5 cm x 2.1 mm I.D., 1.9 µm particles (577122-U)
mobile phase	[A] 5 mM ammonium formate, pH 4; [B] 5 mM ammonium formate in acetonitrile:water (90:10, A:B)
gradient	30 to 70% B in 3 min
flow rate	0.3 mL/min
column temp.	35 °C
detector	MS, ESI+, MRM
sample	3 µL
Application No.	G006371



Related Products

- analytical column**
Titan™ C18 UHPLC Column, 1.9 micron ([Supelco 577122-U](#))
- mobile phase component**
Acetonitrile ([Fluka 14261](#))
Ammonium formate ([Fluka 14266](#))
Water ([Fluka 14263](#))
- SPME fiber**
SPME LC Tips ([Supelco 57234-U](#))
- standard**
Carbamazepine solution ([Cerilliant C-053](#))
Diazepam solution ([Cerilliant D-907](#))
Metoprolol tartrate solution ([Cerilliant M-123](#))
Propranolol hydrochloride solution ([Cerilliant P-055](#))