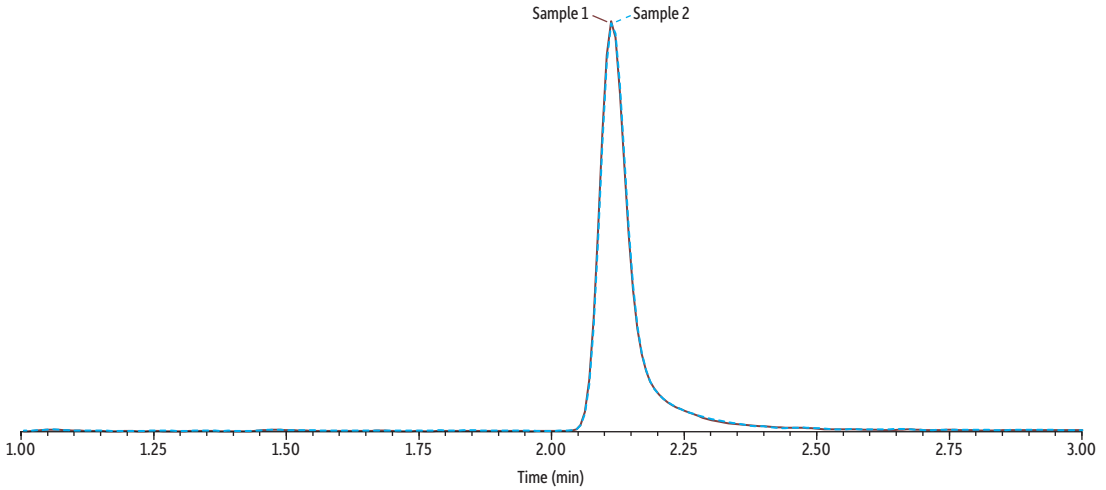
Impact of High Gabapentin Levels on Amphetamine in Urine Analyzed on Raptor Biphenyl Using Method 2



Peaks	Conc. (µg/mL)	t_R (min) (Sample 1)	t_R (min) (Sample 2)	Peak Area (Sample 1)	Peak Area (Sample 2)	Peak Height (Sample 1)	Peak Height (Sample 2)
1. Amphetamine	0.1	2.12	2.12	1361087	1372573	318247	318376

Column Raptor Biphenyl (cat.# 9309A12)
Dimensions: 100 mm x 2.1 mm ID
Particle Size: 2.7 µm
Pore Size: 90 Å
Guard Column: Raptor Biphenyl EXP guard column cartridge 5 mm, 2.1 mm ID, 2.7 µm (cat.# 9309A0252)
Temp.: 45 °C
Standard/Sample
Diluent: 90:10 Water:mobile phase B
Inj. Vol.: 2 µL
Mobile Phase
A: Water, 10 mM ammonium formate
B: 90:10 Methanol:2-propanol (v/v), 0.1% formic acid

Time (min)	Flow (mL/min)	%A	%B
0.00	0.5	90	10
7.00	0.5	25	75
9.00	0.5	0	100
10.00	0.5	0	100
10.01	0.5	90	10
11.00	0.5	90	10

Max Pressure: 390 bar
Detector Shimadzu 8045 LC-MS/MS
Ion Mode: ESI+
Mode: MRM
Instrument Shimadzu Nexera X2
Sample Preparation Control urine (20 µL) was added to a 1.5 mL microcentrifuge tube along with 20 µL of a premade enzyme hydrolysis master mix. The sample was vortexed for 10 seconds and left to incubate at room temperature for 20 minutes. After the incubation, 260 µL of the diluent (water:mobile phase B [v/v]) was added. A 100 µL aliquot was added to a vial insert (cat.# 21776) in a 2.0 mL, amber, short-cap vial (cat.# 21142) and capped with a 9 mm short cap (cat.# 24497) and injected on the LC-MS/MS for analysis.
Notes Sample 1 contained 0.1 µg/mL of gabapentin (not shown) and 0.1 µg/mL of amphetamine.
Sample 2 contained 250 µg/mL of gabapentin (not shown) and 0.1 µg/mL of amphetamine.