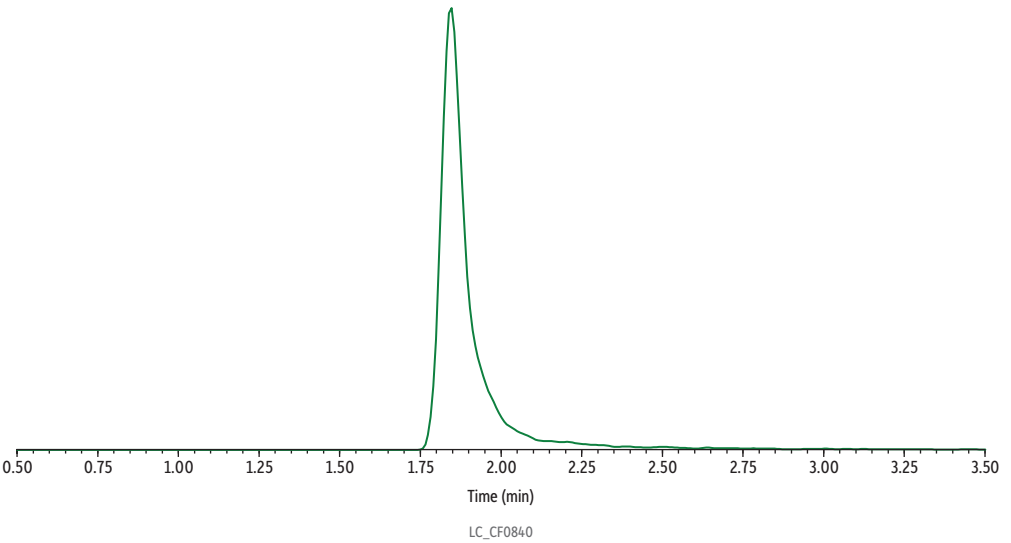
500 µg/mL of Gabapentin in Urine Analyzed on a Larger-Bore Raptor Biphenyl Column



Peaks	tR (min)	Precursor	Product 1	Product 2
1. Gabapentin	1.84	172.1	154.1	136.9

Column	Raptor Biphenyl (cat.# 9309A55)
Dimensions:	50 mm x 4.6 mm ID
Particle Size:	2.7 µm
Pore Size:	90 Å
Guard Column:	Raptor Biphenyl EXP guard column cartridge 5 mm, 4.6 mm ID, 2.7 µm (cat.# 9309A0250)
Temp.:	45 °C
Standard/Sample	
Diluent:	90:10 Water:mobile phase B
Conc.:	500 µg/mL
Inj. Vol.:	10 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	0.9	90	10
7.00	0.9	25	75
9.00	0.9	0	100
10.00	0.9	0	100
10.01	0.9	90	10
11.00	0.9	90	10

Max Pressure:	209 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.