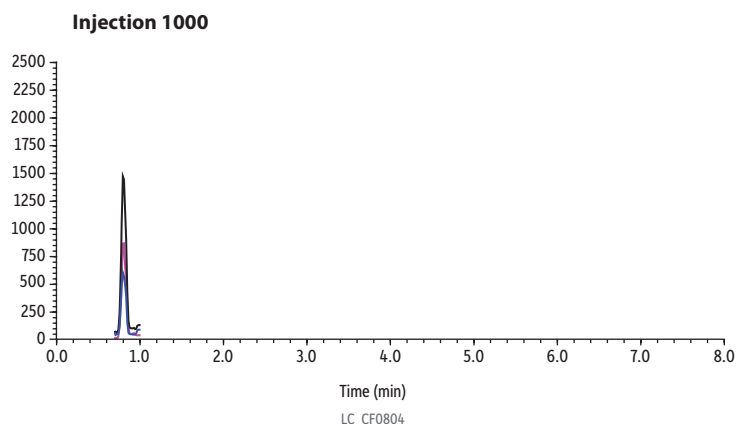
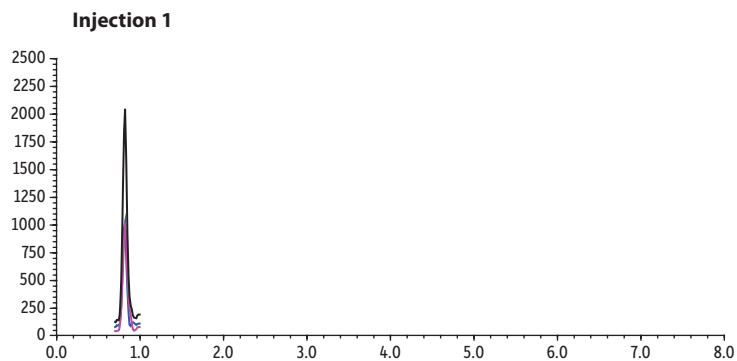


Morphine on Raptor Biphenyl (Figure 7 for Biphenyl Advantage Article)



Peaks	tr (min)	Precursor	Product Ion 1	Product Ion 2
1. Morphine	0.85	286.2	152.1	165.0

Column Raptor Biphenyl (cat.# 9309A52)
Dimensions: 50 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:methanol containing 0.1% formic acid
Conc.: 2 ng/mL in urine, diluted 30-fold
Inj. Vol.: 5 µL

Mobile Phase
A: Water, 0.1% formic acid
B: Methanol, 0.1% formic acid

Time (min)	Flow (mL/min)	%A	%B
0.00	0.6	90	10
6.00	0.6	25	75
7.00	0.6	0	100
8.00	0.6	0	100
8.01	0.6	90	10
9.00	0.6	90	10

Detector Shimadzu 8060
Ion Source: Electrospray
Ion Mode: ES+
Instrument Shimadzu Nexera X2
Sample Preparation Morphine was spiked at 2 ng/mL into urine, hydrolyzed, diluted 30-fold, and centrifuged. The sample was aliquoted into 2 mL, screw-thread vials (cat.# Z1143) and capped with short-cap, screw-vial closures (cat.# 24498).