

# HPLC Application

ID No.: 16334

## Morphine and Metabolites on Luna 5um HILIC

**Column:** Luna® 5 µm HILIC 200 Å, LC Column 100 x 2 mm, Ea

**Dimensions:** 100 x 2 mm ID

**Order No:** 00D-4450-B0

**Elution Type:** Gradient

**Eluent A:** 90/10 Acetonitrile/100mM Ammonium Formate pH 3.2

**Eluent B:** 50/50 Acetonitrile/20mM Ammonium Formate pH 3.2

<b>Gradient Profile:</b>	<b>Step No.</b>	<b>Time (min)</b>	<b>Pct A</b>	<b>Pct B</b>
	<b>1</b>	0	100	0
	<b>2</b>	1	100	0
	<b>3</b>	3	0	100
	<b>4</b>	4.5	0	100
	<b>5</b>	4.51	100	0
	<b>6</b>	9.51	100	0

**Flow Rate:** 0.4 mL/min

**Col. Temp.:** ambient

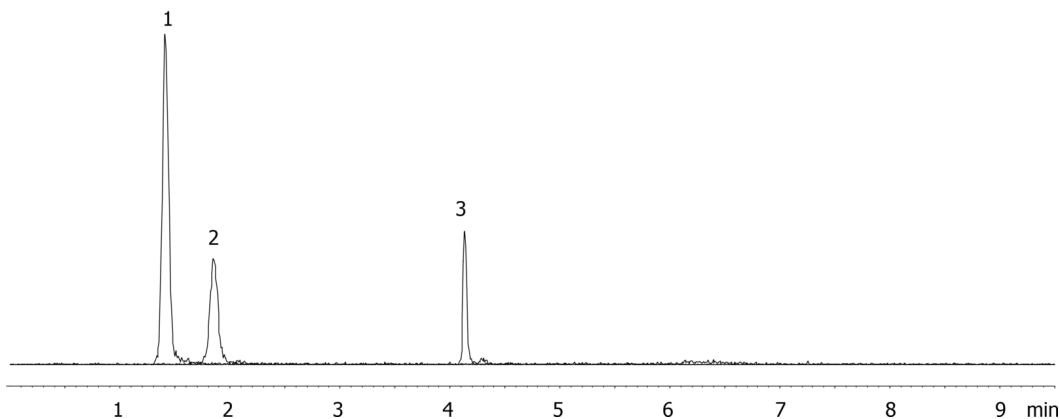
**Detection:** Mass Spectrometer (MS) @ amu (ambient)

**Detector Info:** ABI 3000 Triple Quad MS

**Analyst Note:** The pH of the aqueous buffer is specified. The pH in mixed organic was not measured.  
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Products used in this application:



### ANALYTES:

- 1 Morphine
- 2 Normorphine
- 3 Morphine-3-beta-D-glucuronide

