# Waters<sup>™</sup>

#### 

# Gradient Separation of Morphine and Morphine-3-β-Glucuronide on ACQUITY UPLC BEH HILIC

Waters Corporation



This is an Application Brief and does not contain a detailed Experimental section.

### Abstract

This application brief demonstrates gradient separation of morphine and morphine-3- $\beta$ -glucuronide on ACQUITY UPLC BEH HILIC Columns.

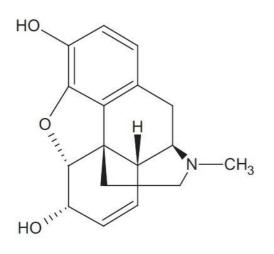
### Introduction

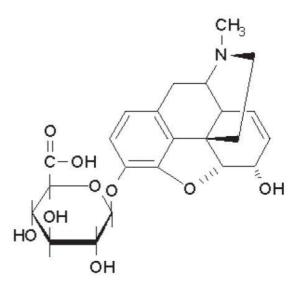
The compounds used in this study are:

- 1. Morphine
- 2. Morphine-3- $\beta$ -Glucuronide

Morphine

Morphine-3-β-Glucuronide





## Experimental

#### **Test Conditions**

Column:	ACQUITY UPLC BEH HILIC, 2.1 x 100 mm, 1.7 µm
Part Number:	186003461
Mobile Phase A:	10 mM NH <sub>4</sub> COOH, 0.2% HCOOH in 50:50 ACN:H <sub>2</sub> O
Mobile Phase B:	10 mM NH₄COOH, 0.2% HCOOH in 90:10 ACN:H <sub>2</sub> O
Flow Rate:	0.788 mL/min
Injection Volume:	2.1 µL
Sample Concentration:	125 µg/mL
Sample Diluent:	75:25 ACN:MeOH with 0.2% HCOOH
Temperature:	30 °C
Detection:	UV @ 280 nm
Sampling Rate:	20 pts/sec
Time Constant:	0.1
Instrument:	Waters ACQUITY UPLC with ACQUITY TUV
Gradient:	

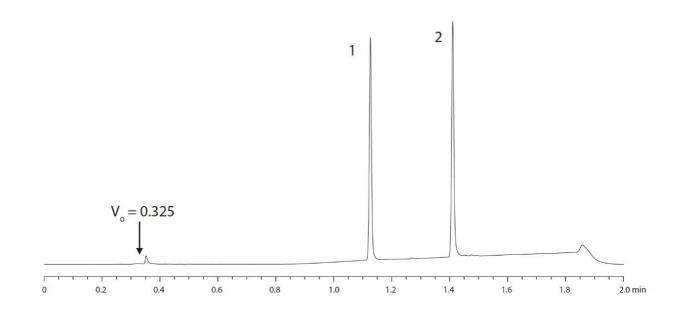
Time (min)

Profile

%A

Time (min)	Profile
0.00	0.1
0.37	0.1
1.46	99.9
1.50	0.1
2.00	0.1

## Results and Discussion



# Featured Products

ACQUITY UPLC System <https://www.waters.com/514207>

ACQUITY UPLC Tunable UV Detector <a href="https://www.waters.com/514228">https://www.waters.com/514228</a>

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