

## Application Note

# Codeine and Its Glucuronide Metabolite in Porcine Plasma

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Waters Corporation



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

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## Abstract

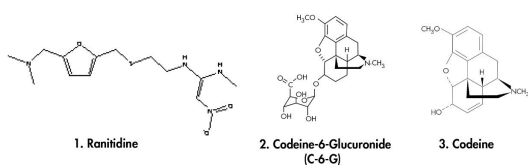
This application brief highlights the analysis of codeine and its glucuronide metabolite in porcine plasma using Symmetry C<sub>18</sub> columns.

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## Introduction

Compounds used in this application brief are:

1. Ranitidine (I.S.)
2. Codeine-6-Glucuronide (C-6-G)
3. Codeine



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## Experimental

### HPLC Method

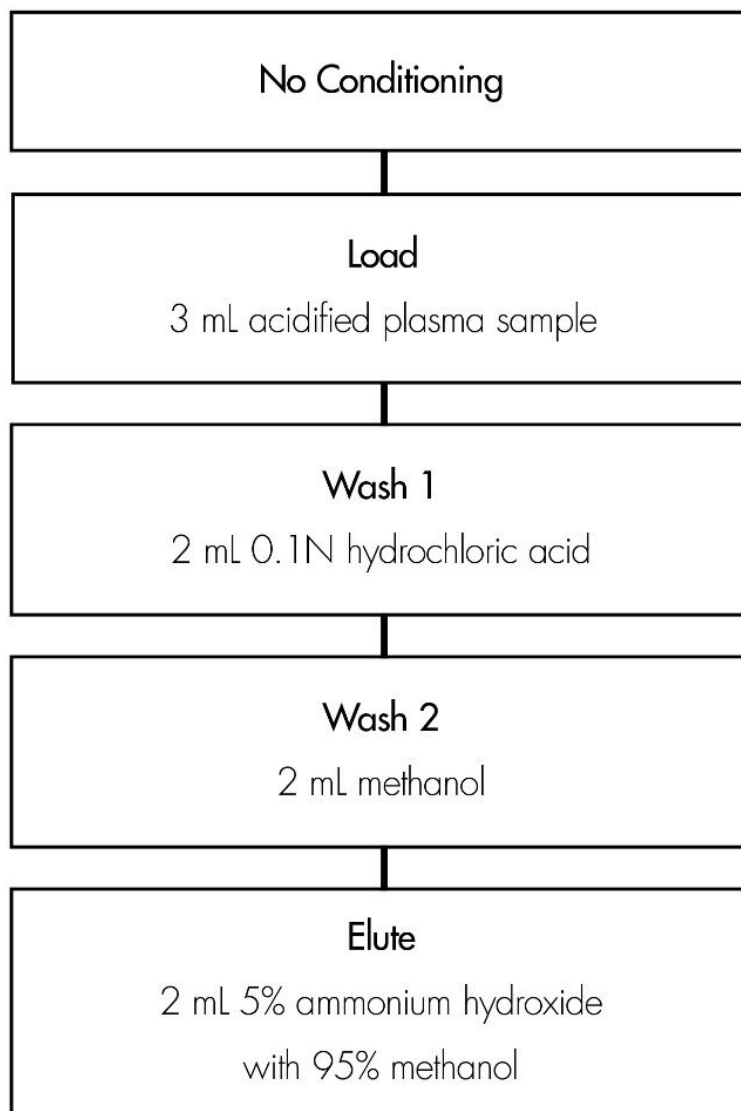
|               |                                                                  |
|---------------|------------------------------------------------------------------|
| Column:       | Symmetry C <sub>18</sub> , 2.1 x 150 mm, 3.5 µm (p/n: 186000174) |
| Guard column: | Symmetry C <sub>18</sub> , 2.1 x 10 mm, 3.5 µm (p/n: 186000169)  |
| Mobile phase: | Methanol/Acetonitrile/0.05% TFA in water<br>5:5:90               |

|                   |                         |
|-------------------|-------------------------|
| Flow rate:        | 0.3 mL/min              |
| Injection volume: | 80 µL urine extract     |
| Temperature:      | 30 °C                   |
| Detection:        | UV @ 220 nm (0.04 AUFS) |

## Oasis® MCX Extraction Method

Oasis® MCX Extraction Cartridge, 3 cc/60 mg

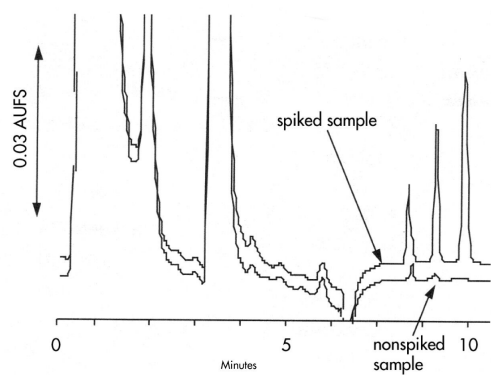
Part Number 186000254



*After elution, the extract is diluted 1:3 with water for HPLC analysis*

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Results and Discussion



| Spike level           | % Recovery<br>0.12 µg/mL | %RSD (n=3)<br>0.6 µg/mL |
|-----------------------|--------------------------|-------------------------|
| Codeine               | 95.4 (5.0)               | 103.4 (0.9)             |
| Codeine-6-Glucuronide | 106.8 (1.9)              | 04.6 (1.3)              |

## Featured Products

WA31763.64, June 2003