

Application Note

Codeine and Its Glucuronide Metabolite in Porcine Plasma

Waters Corporation



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

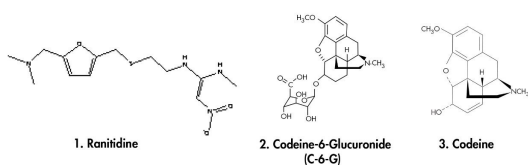
Abstract

This application brief highlights the analysis of codeine and its glucuronide metabolite in porcine plasma using Symmetry C₁₈ columns.

Introduction

Compounds used in this application brief are:

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



Experimental

HPLC Method

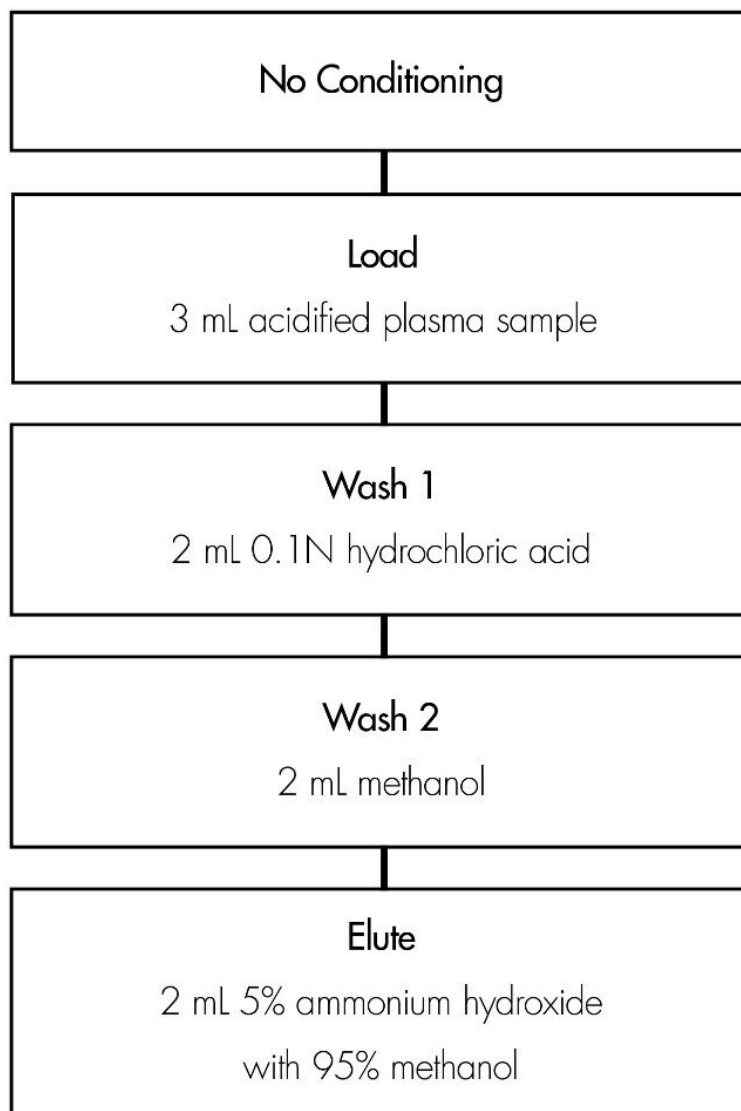
Column:	Symmetry C ₁₈ , 2.1 x 150 mm, 3.5 µm (p/n: 186000174)
Guard column:	Symmetry C ₁₈ , 2.1 x 10 mm, 3.5 µm (p/n: 186000169)
Mobile phase:	Methanol/Acetonitrile/0.05% TFA in water 5:5:90

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

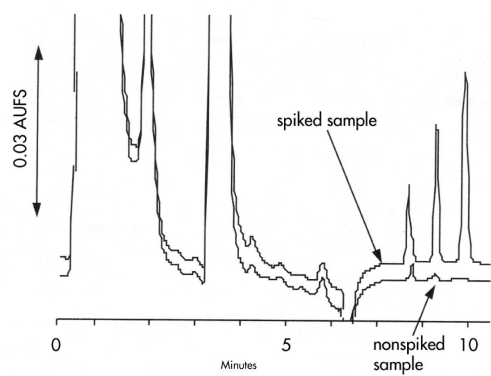
Oasis® MCX Extraction Cartridge, 3 cc/60 mg

Part Number 186000254



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

Results and Discussion



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

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