

Codeine and its Glucuronide Metabolite in Plasma

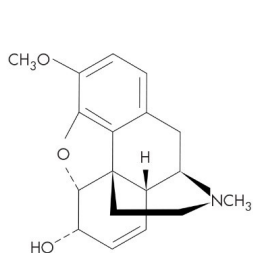
Waters Corporation

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

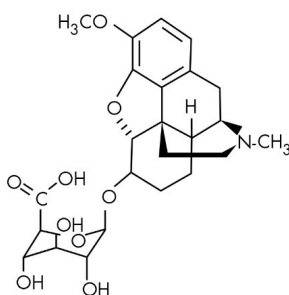
Abstract

This application brief highlights on the analysis of codeine and its glucuronide metabolite in plasma.

Introduction



CODEINE



CODEINE-6-GLUCURONIDE

Experimental

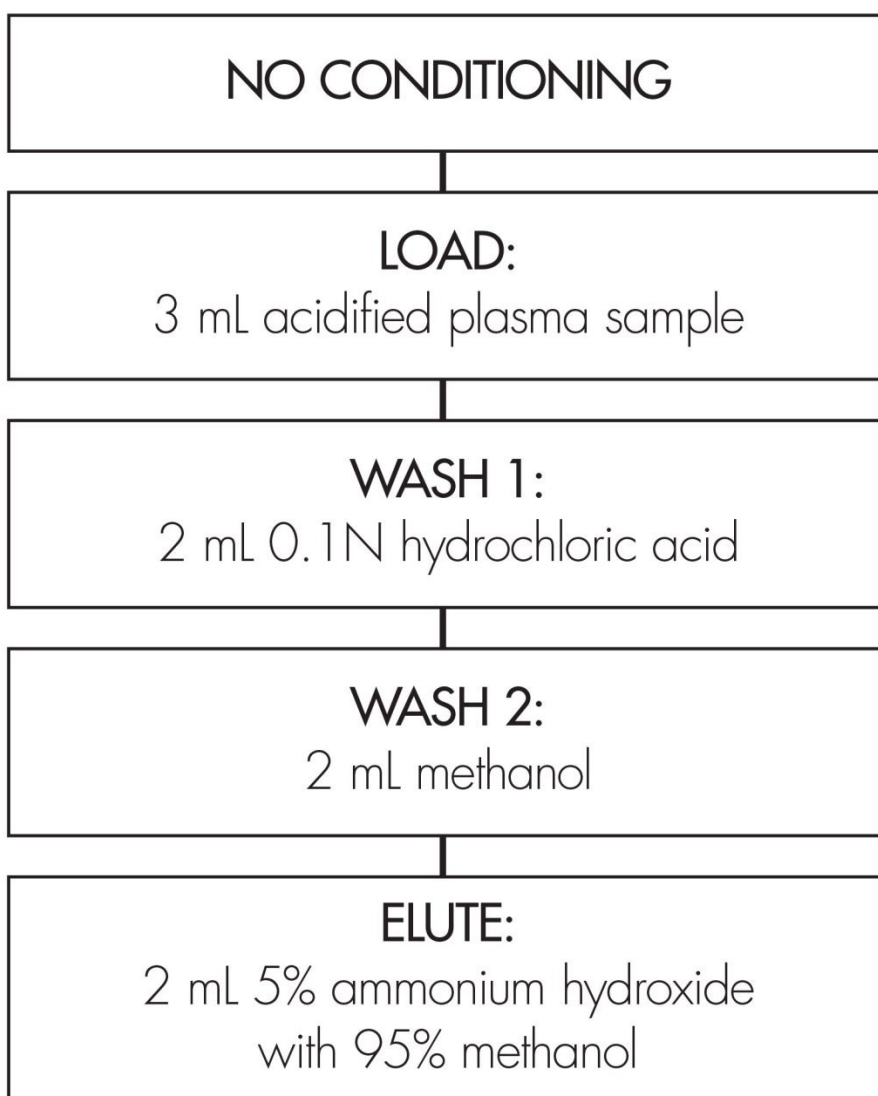
HPLC Conditions

Column:	Symmetry C ₁₈ , 2.1 x 150 mm, 3.5 μm
Guard column:	Symmetry C ₁₈ , 2.1 x 10 mm, 3.5 μm
Part numbers:	Column - 186000174, Guard - 186000169
Mobile phase:	Methanol/Acetonitrile/0.05% TFA in water 5:5:90
Flow rate:	0.3 mL/min
Injection volume:	80 μL Plasma 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



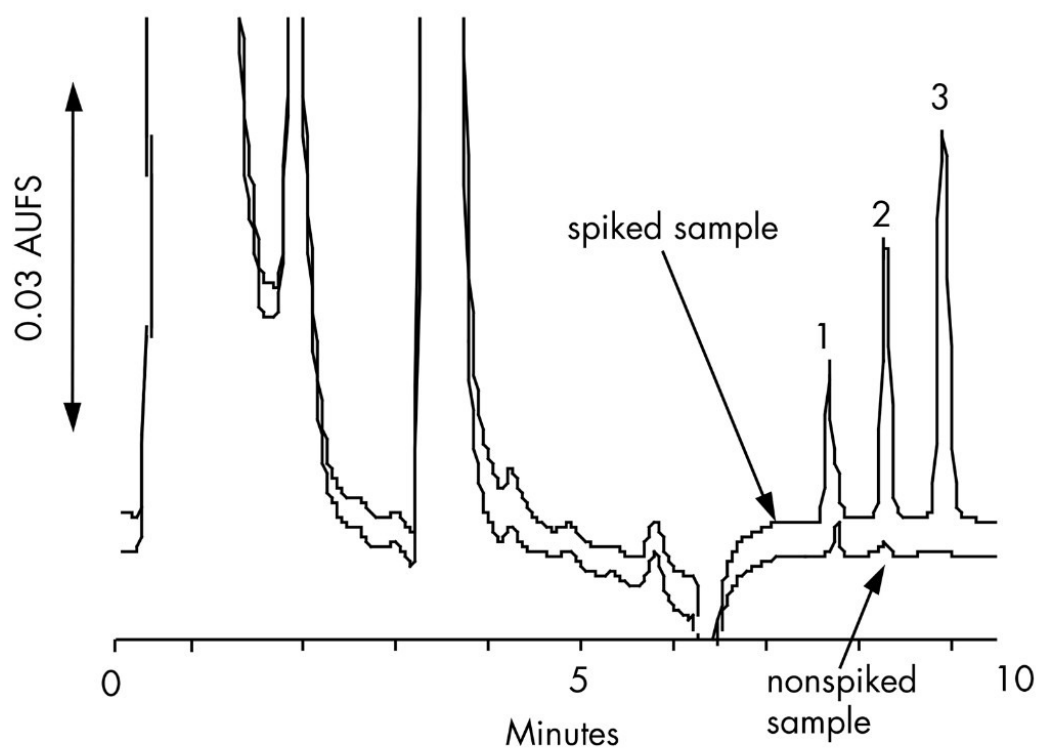
After elution, the extract is diluted 1:3 with water for HPLC analysis

Results and Discussion

The compounds analyzed in this study are:

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

Chromatogram of Plasma Extracts: A) Blank B) Spiked Sample



Spike level	% Recovery (n=3) 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)	104.6 (1.3)

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