

Application Note

Methadone and Metabolites in Human Urine

Waters Corporation



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

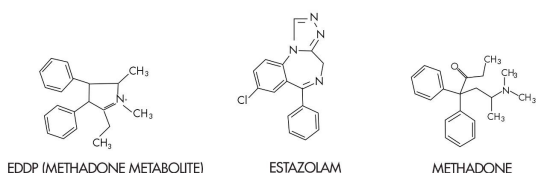
Abstract

This application brief highlights the analysis of methadone and metabolites in human urine using Oasis MAX extraction method.

Introduction

Compounds studied in this application brief are:

1. EDDP (0.2 µg/mL)
2. Estazolam (I.S.) (0.2 µg/mL)
3. Methadone (0.2 µg/mL)



Experimental

HPLC Method

Column:	Symmetry C ₈ , 3.9 x 150 mm, 5 µm (p/n: WAT046970)
Guard Column:	Sentry Guard Column 3.9 x 20 mm, 5 µm (p/n: WAT054250)
Mobile phase:	0.1% TFA in water/Methanol 60:40
Flow rate:	1.0 mL/min

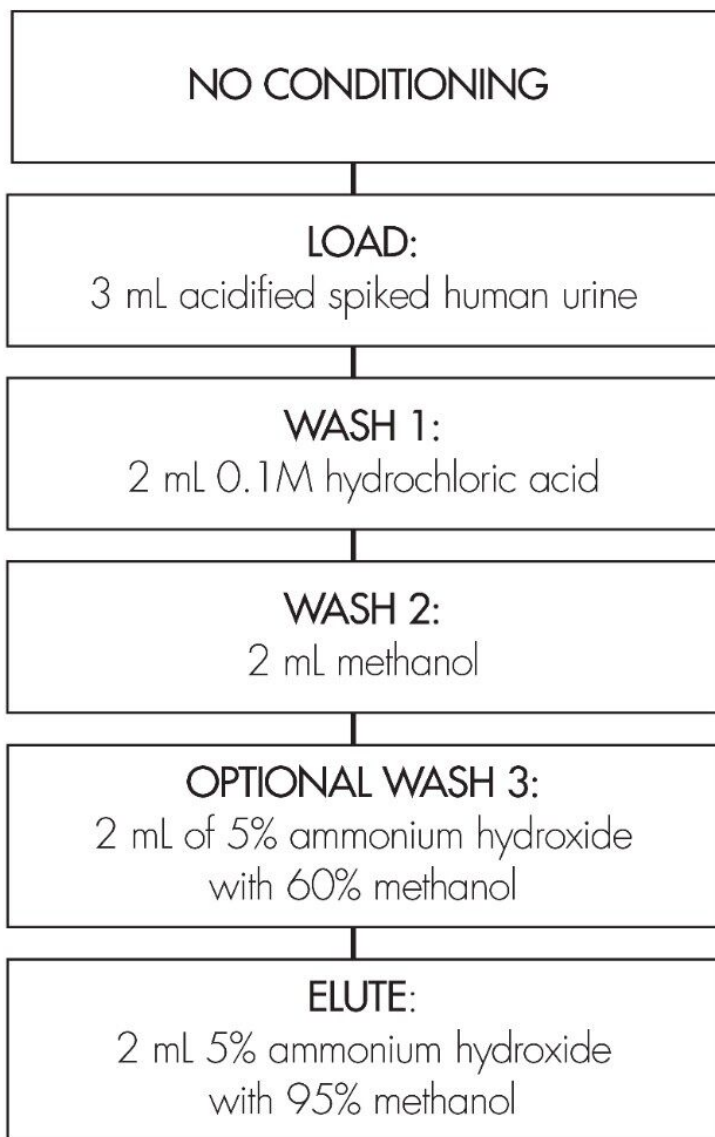
Injection volume: 100 μ L urine extract

Temperature: 30 $^{\circ}$ C

Detection: UV @ 210 nm

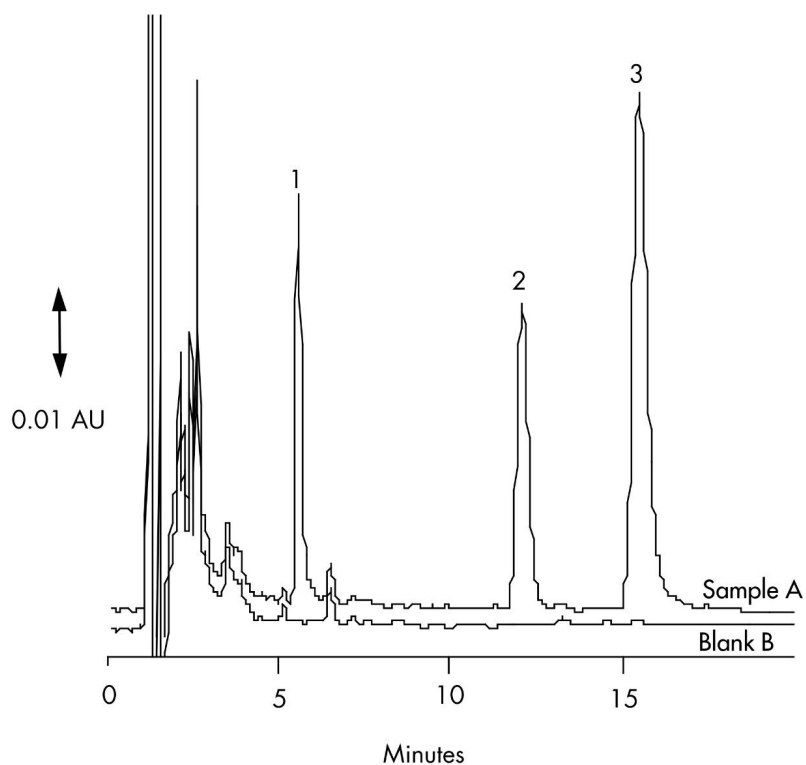
OASIS[®] MCX EXTRACTION METHOD

Oasis[®] MCX Extraction Cartridge, 3 cc/60 mg
Part Number 186000254



Each elution diluted 1:1 with water for HPLC analysis

Results and Discussion



Compound	% Recovery	%RSD (n=6)
Methadone (0.5 µg/mL)	95.2 (1.0)	97.4 (3.0)
Methadone (0.1 µg/mL)	98.0 (4.8)	114.7 (8.2)
EDDP (0.2 µg/mL)	93.3 (1.0)	92.9 (2.4)
EDDP (0.4 µg/mL)	98.4 (2.9)	100.5 (5.8)
Estazolam (IS)	94.4 (3.3)	91.2 (91.2)

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