

## Propranolol in Human Urine

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Waters Corporation



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

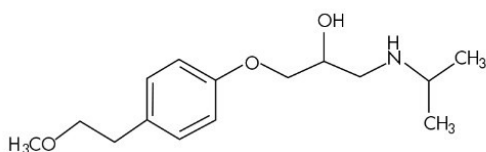
### Abstract

This application brief highlights the analysis of propranolol in human urine using SymmetryShield columns.

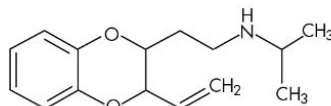
## Introduction

Compounds used in this study are:

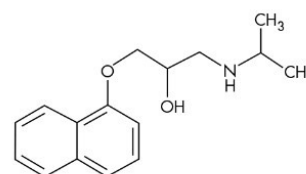
1. Metoprolol
2. Oxprenolol (I.S.)
3. Propranolol



**1. Metoprolol**



**2. Oxprenolol (I.S.)**



**3. Propranolol**

## Experimental

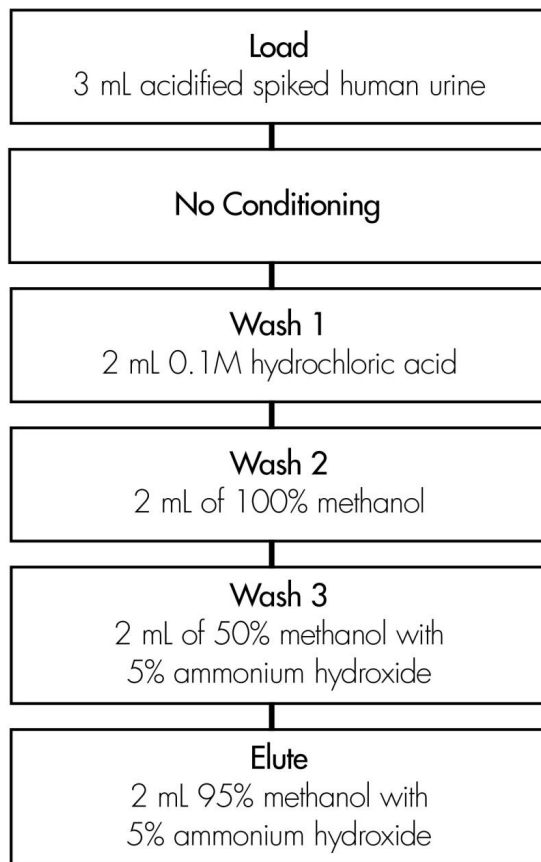
### HPLC Method

Column:	SymmetryShield RP <sub>18</sub> , 3.9 x 150 mm, 5 µm (p/n: 186000108)
Guard Column:	Sentry guard column RP <sub>18</sub> 3.9 x 20 mm, 5 µm (p/n: 186000107)
Mobile phase:	0.1% TFA in water/Acetonitrile 80:20
Flow rate:	1.0 mL/min
Injection volume:	50 µL
Temperature:	30° C

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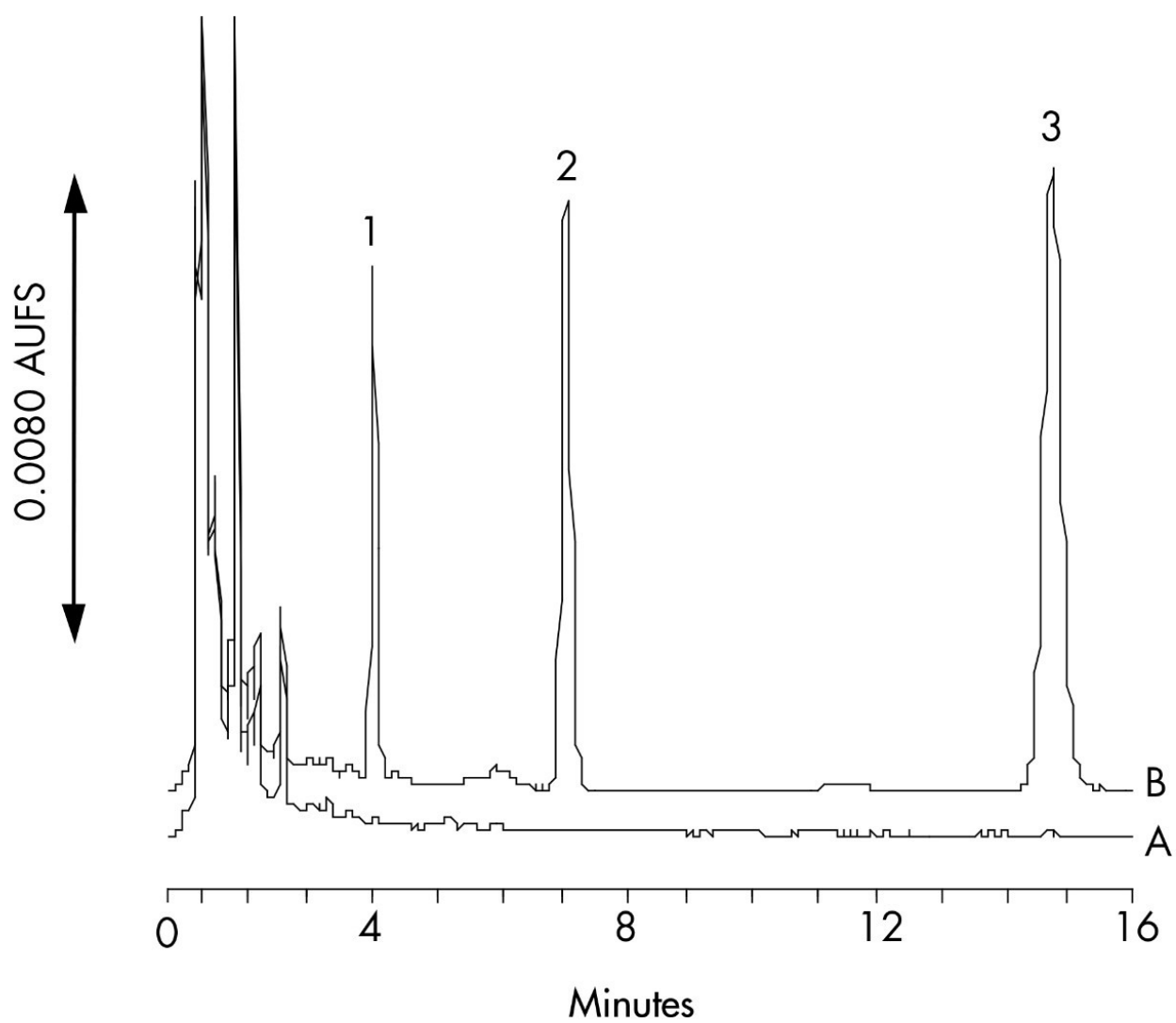
## Oasis® MCX Extraction Method

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



*Neutralize each elution with 100  $\mu$ L of acetic acid. Evaporate under  $N_2$  at 40  $^{\circ}$ C and reconstitute with 300  $\mu$ L of water*

## Results and Discussion



Compound	% Recovery 0.08 µg/mL	(%RSD) 0.4 µg/mL
Propranolol (n=3)	105.8 (2.7)	98.5 (0.7)
Metoprolol (n=3)	101.0 (3.4)	99.6 (0.4)
Propranolol Interday (n=6)		99.0 (0.9)
Propranolol Interperson (n=9)		100.4 (6.4)
Metoprolol (n=6)		100.3 (0.9)
Metoprolol (n=9)		97.3 (2.6)
Oxprenolol (I.S.)		91.1 (3.2)

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