

Application Note

Atenolol in Urine by Mixed-Mode Weak Cation Exchange and LC-MS/MS

Waters Corporation

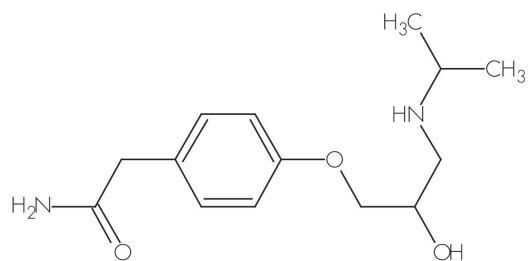
This is an Application Brief and does not contain a detailed Experimental section.

Abstract

This application brief demonstrates analysis of atenolol in urine by mixed-mode weak cation exchange and LC-MS/MS.

Introduction

The compound analyzed in this study is Atenolol.



Atenolol

Experimental

LC Conditions

Column:	XTerra MS C ₁₈ 2.1 x 20 mm <i>IS</i> , 3.5 μm
Part number:	186001923
Mobile phase A:	10 mM NH ₄ HCO ₃ , pH 10
Mobile phase B:	MeOH with 10 mM NH ₄ HCO ₃ , pH 10
Flow rate:	0.4 mL/min
Injection volume:	10 μL
Column temperature:	Ambient
Instrument:	Waters 2777 Sample Manager and Waters 1525μ Binary HPLC Pump

Gradient

Time (min)	%A	%B
0.0	95	5
3.0	5	95
4.0	5	95
4.1	95	5
5.0	95	5

MS Conditions

Waters Micromass Quattro Ultima

ESI+

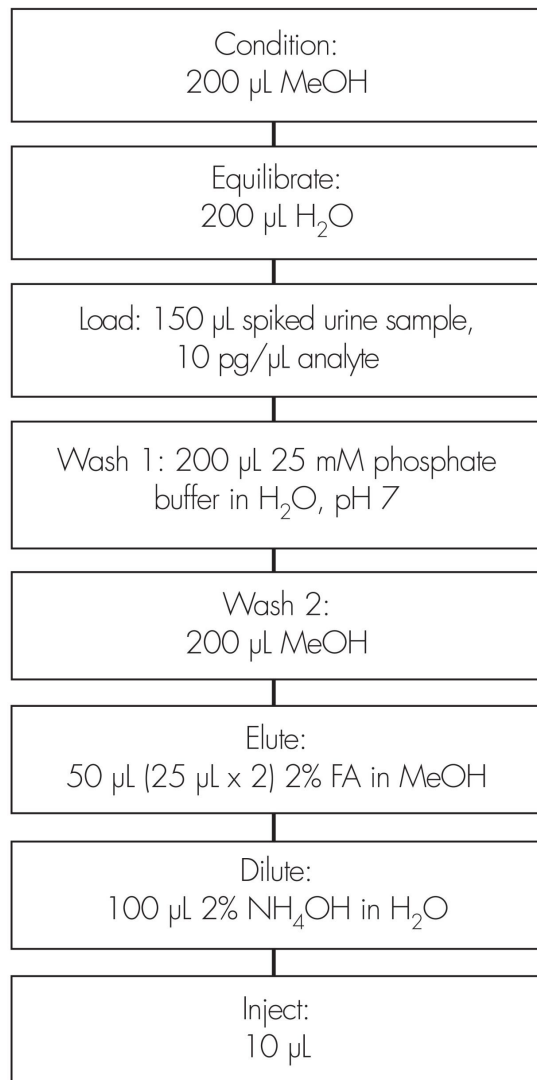
Source temp.: 150 °C

Desolvation temp.: 350 °C

Cone gas flow:	50 L/Hr
Desolvation gas flow:	550 L/Hr
Collision cell:	2.2e^{-3} bar (Argon gas)
Cone voltage:	45 volts
CID:	25eV
MRM transition:	m/z 266.9 $\rightarrow$ 144.9

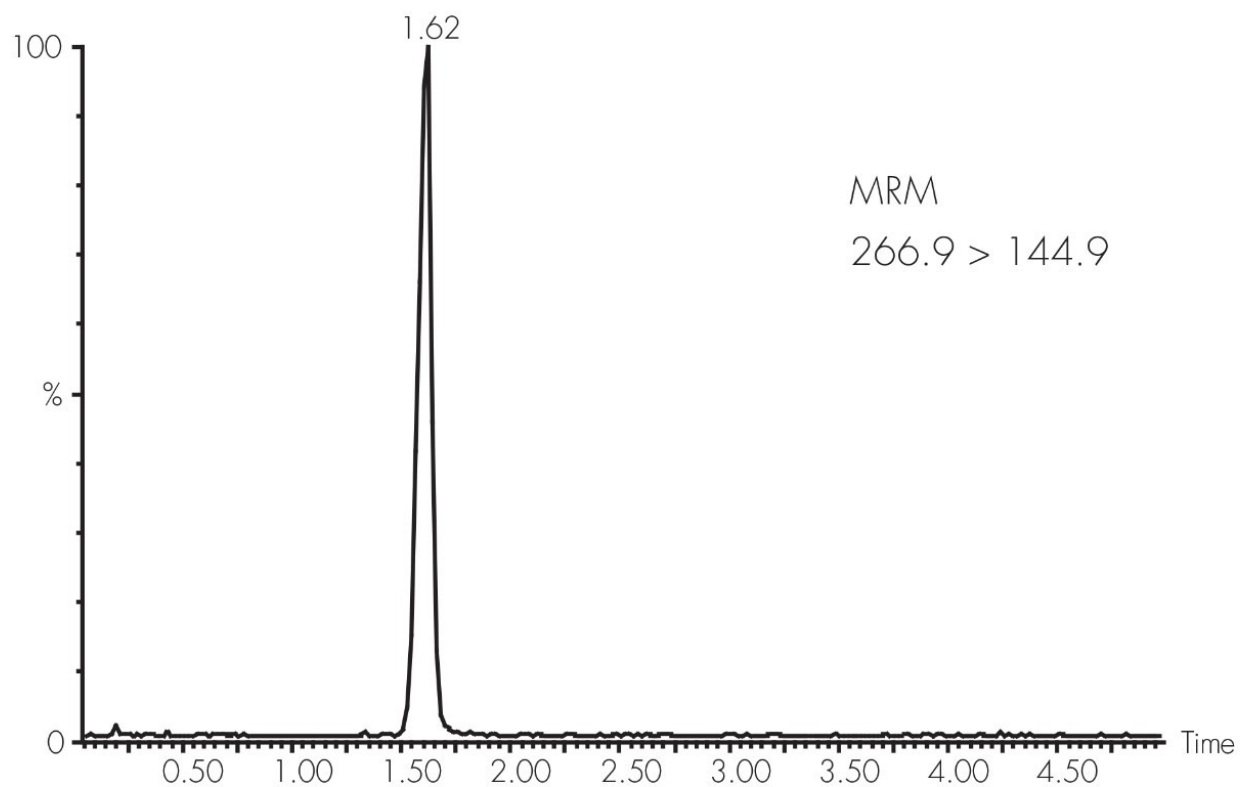
Oasis® WCX μ Elution Plate

Part Number: 186002499



Results and Discussion

106% Recovery



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