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

Waters Corporation

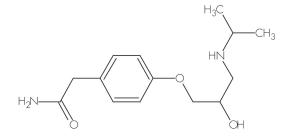
This is an Application Brief and does not contain a detailed Experimental section.

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

Instrument:

 Column:
 XTerra MS C₁₈ 2.1 x 20 mm /S, 3.5 μm

 Part number:
 186001923

 Mobile phase A:
 10 mM NH₄HCO₃, pH 10

 Mobile phase B:
 MeOH with 10 mM NH₄HCO₃, pH 10

 Flow rate:
 0.4 mL/min

 Injection volume:
 10 μL

 Column temperature:
 Ambient

Waters 2777 Sample Manager and Waters 1525

μ 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

Desolvation gas flow: 550 L/Hr

Collision cell: 2.2e⁻³ bar (Argon gas)

50 L/Hr

Cone voltage: 45 volts

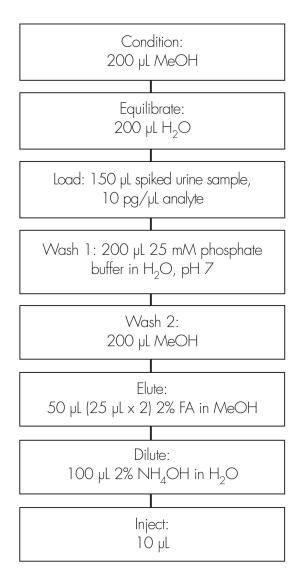
CID: 25eV

Cone gas flow:

MRM transition: $m/z 266.9 \rightarrow 144.9$

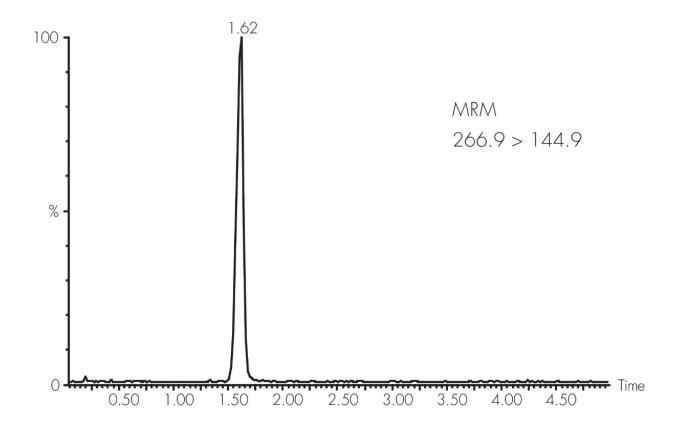
Oasis® WCX µElution Plate

Part Number: 186002499



Results and Discussion

106% Recovery



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WA31764.200, June 2003

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