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Application Note

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

Waters	Corr	oration

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

Abstract

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

Introduction

The compound analyzed in this study is Atenolol.

Atenolol

Experimental

LC Conditions

XTerra MS C_{18} 2.1 x 20 mm \emph{IS} , 3.5 μm Column: 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 Ambient Column temperature: 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

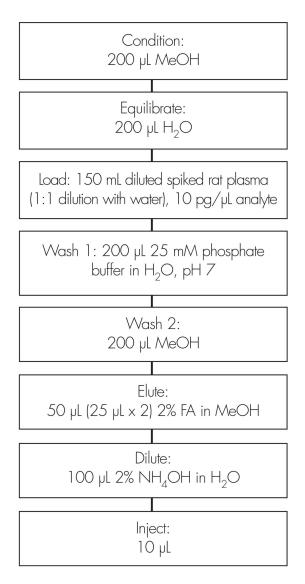
CID: 25eV

m/z 266.9 \rightarrow 144.9

MRM transition:

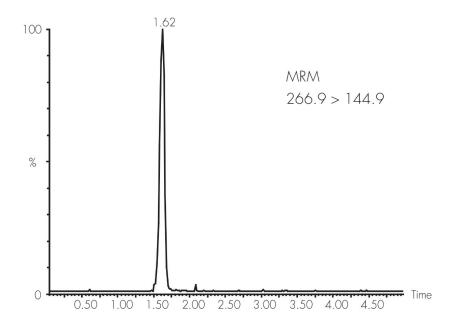
Oasis® WCX µElution Plate

Part Number: 186002499



Results and Discussion

101% Recovery



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