Waters™

응용 자료

Naltrexone in Plasma - LC-MS

Waters Corporation

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

Abstract

This application brief demonstrates anaylsis of naltrexone in plasma by LC-MS.

Introduction

The compound analyzed in this study is naltrexone.

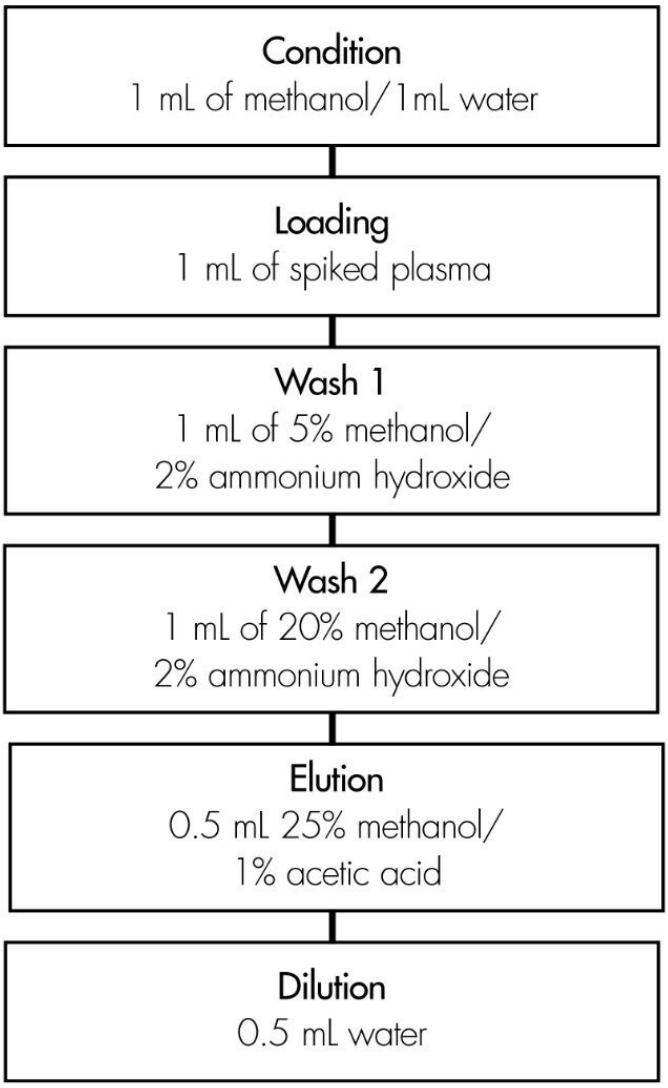
Experimental

HPLC Method

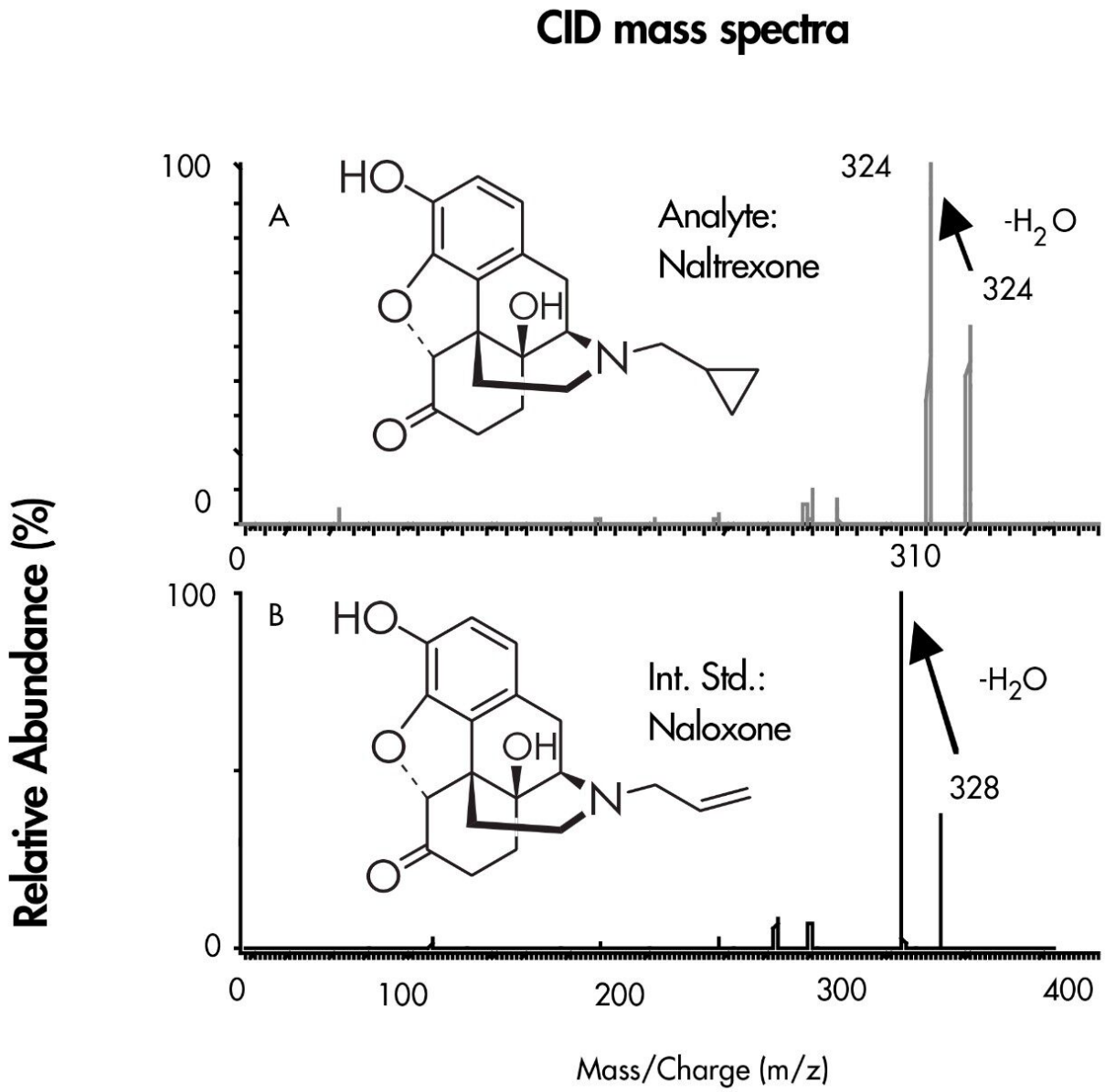
Column:	Symmetry C_8, 2.1 x 30 mm, 5 µm
Part number:	WAT058977
Mobile phase:	10 mM NH_4OH, pH 5/Acetonitrile 88:12
Flow rate:	200 µL/min
Injection volume:	50 µL plasma extract
MS:	Micromass Quattro II
Ion source temp.:	120 °C
CID:	$1.8e^{-3}$ mBar, 20eV
Desolvation temp.:	400 °C
Nebulizer:	40 L/hr
Drying gas:	400 L/hr
Cone volt:	56V

Oasis® HLB Extraction Method

Oasis® HLB Extraction Plate, 30 mg/96-well
Part Number WAT058951



Results and Discussion

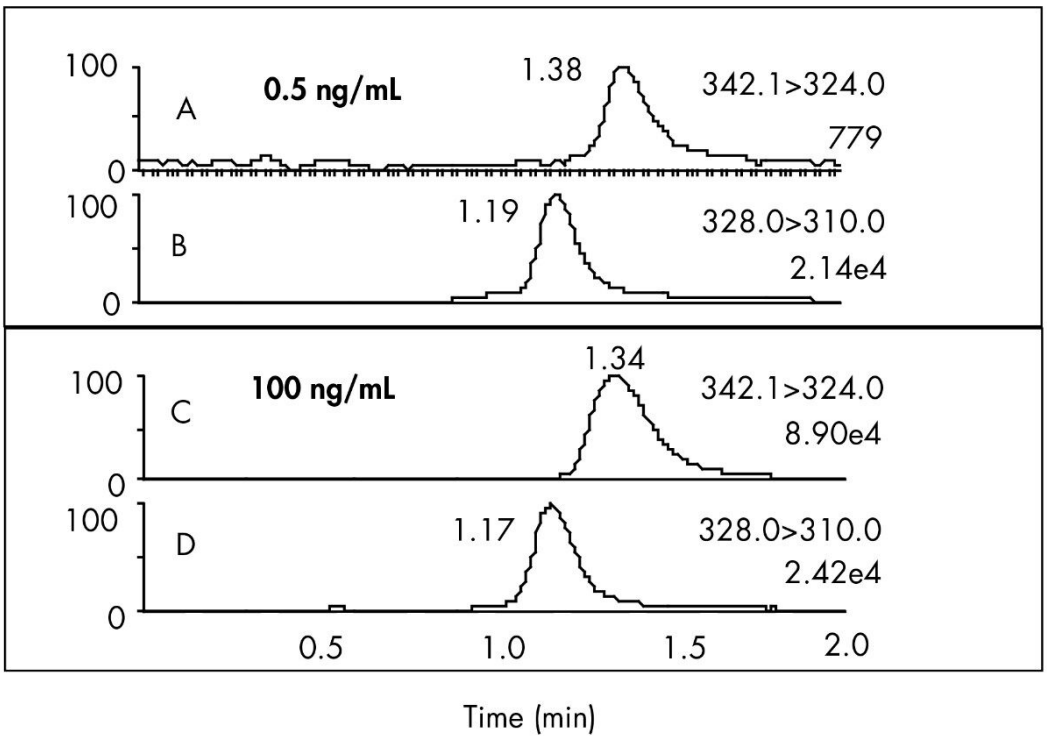


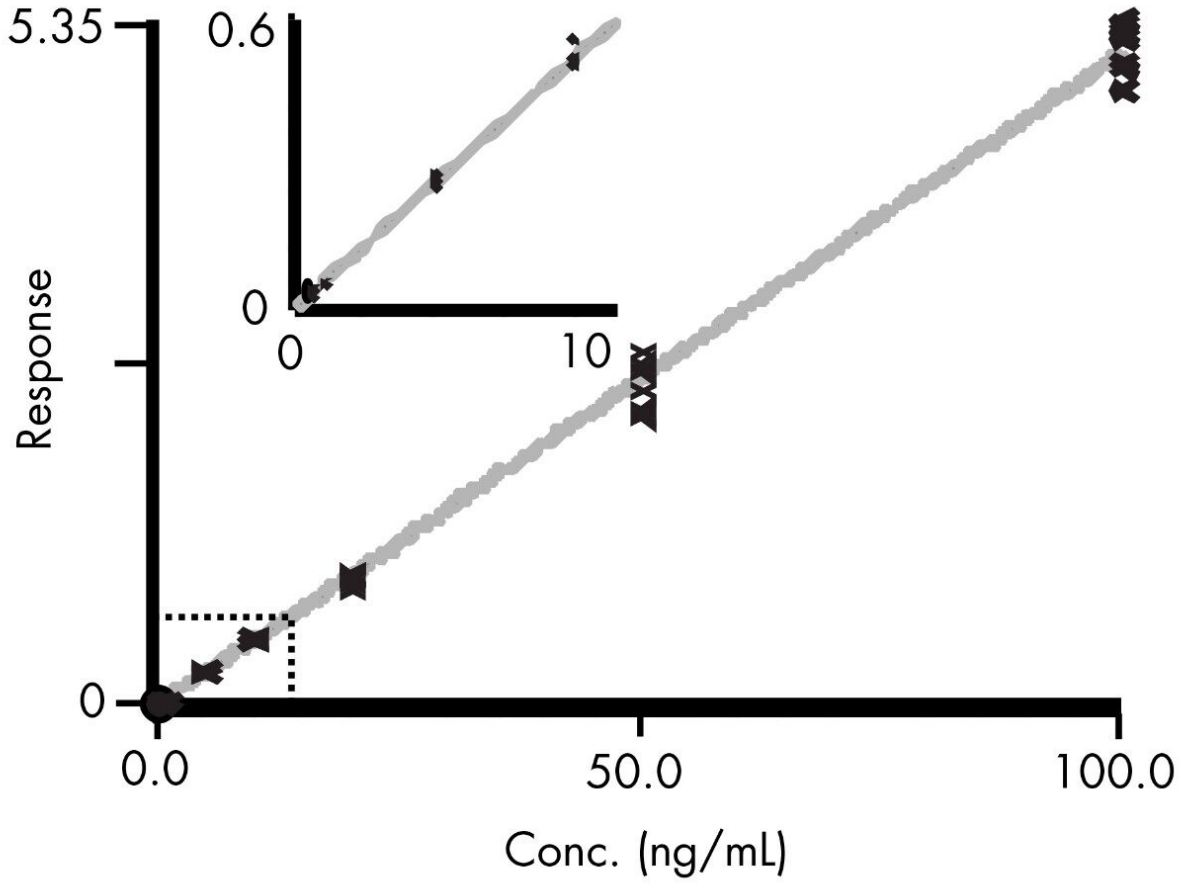
Naltrexone m/z 342 > 324

Naloxone m/z 328 > 310

Conc ng/mL n=8	Average	% Std. Dev	(RSD%)	(rel. error)
0.5	0.6	0.09	16	15
1	0.9	0.06	6	-14
5	5.1	0.2	4	3
10	10.1	0.4	4	1
20	19.7	0.8	4	-2
50	49.1	3.9	8	-2
100	101.1	3.7	4	1

HPLC-MS/MS (MRM Analysis at 0.5 ng/mL and 100 ng/mL





Coefficient of Determination: 0.996457

Calibration Curve: 0.0508208 x + 0.00306776*

Response type: Internal Std (20 ng/mL Naloxone),

*Area * (IS Conc./IS Area)*

Curve type: Linear, Origin: Exclude, Weighting: 1x, Axis trans: None

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