Waters™

Application Note

Clozapine on Oasis MCX

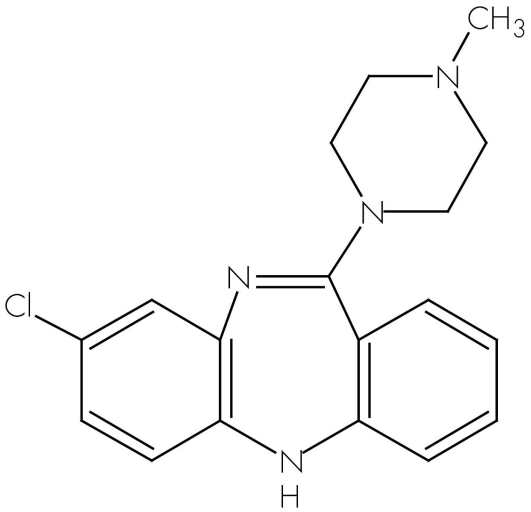
Waters Corporation

Abstract

This application note highlights the separation of clozapine on Oasis MCX.

Introduction

Clozapine is used to treat schizophrenia in patients who have not been helped by or are unable to take other medicines. The analyte is basic and therefore an Oasis MCX product was selected.



Clozapine

MW 326.83

pKa1 = 3.7

pKa2 = 7.6

Experimental

Test Conditions

Oasis MCX 10-mg 96-Well Plate

Condition:	500 µL MeOH
Equilibrate:	500 µL H_2O

Load:	1 mL sample (500 µL human plasma diluted 1:1 with 4% H_3PO_4 in H_2O)
Wash 1:	500 µL 2% HCOOH in H_2O
Wash 2:	500 µL MeOH
Elute:	300 µL (150 µL x 2) 5% NH_4OH in MeOH Dry and reconstitute w/100 µL 0.1% FA in H_2O
Inject:	50 µL
Column:	SunFire C_{18} 2.1 x 50 mm, 3.5 µm
Mobile Phase A:	0.1% FA in H_2O
Mobile Phase B:	0.1% FA in MeOH
Flow Rate:	0.4 mL /min
Injection Volume:	50 µL
Instrument:	2777 Sample Manager and 1525µ Binary HPLC Pump

Gradient

Time (min)	Profile	
	%A	%B
0.0	95	5
5.0	5	95
7.0	5	95
7.5	95	5
10.0	95	5

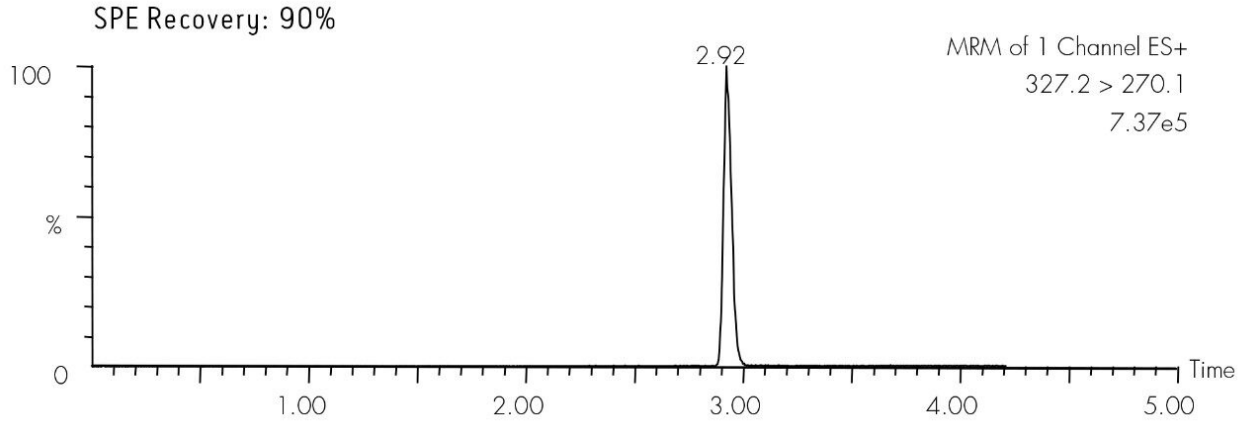
Quattro Premier

ESI+

Source Temp.:	150 °C
Desolvation Temp.:	350 °C
Cone Gas Flow:	50 L /Hr
Desolvation Gas Flow:	600 L /Hr
Collision Cell:	$2.2e^{-3}$ bar (Ar gas)

	MRM transition	Cone (V)	CID (eV)
Clozapine	*m/z* 327.2 ⟶ 270.1	30	20

Results and Discussion



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