

Nota applicativa

Clozapine on Oasis MCX

Waters Corporation

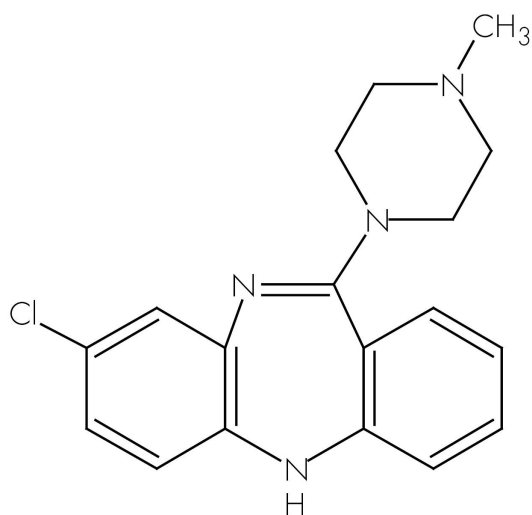


Abstract

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 μ L MeOH

Equilibrate: 500 μ L H₂O

Load:	1 mL sample (500 μ L human plasma diluted 1:1 with 4% H_3PO_4 in H_2O)
Wash 1:	500 μ L 2% $HCOOH$ in H_2O
Wash 2:	500 μ L $MeOH$
Elute:	300 μ L (150 μ L x 2) 5% NH_4OH in $MeOH$ Dry and reconstitute w/100 μ L 0.1% FA in H_2O
Inject:	50 μ L
Column:	SunFire C_{18} 2.1 x 50 mm, 3.5 μ m
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 μ L
Instrument:	2777 Sample Manager and 1525 μ 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

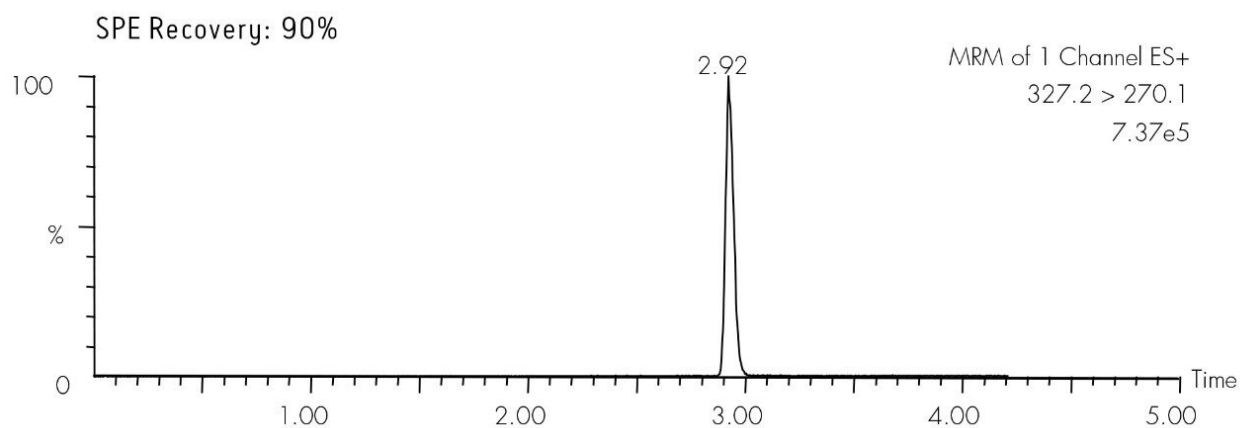
Cone Gas Flow: 50 L /Hr

Desolvation Gas Flow: 600 L /Hr

Collision Cell: 2.2×10^{-3} bar (Ar gas)

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

Results and Discussion



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