

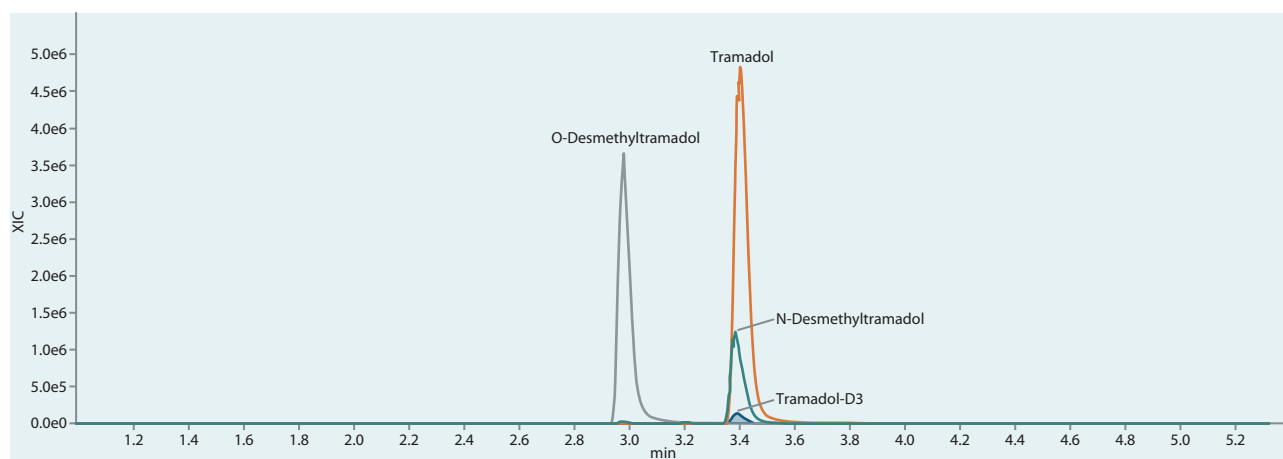


TRAMADOL BY LC/MS

INTRODUCTION

Tramadol is a centrally acting opioid analgesic belonging to the pharmacotherapeutic group of opioid analgesic. Tramadol is sometimes used in combination with Paracetamol to treat moderate to severe pain suffered by patients with various types of pain. This application has been developed to monitor right drug dosing.

Substance: O-Desmethyltramadol, CAS number 73986-53-5
 N-Desmethyltramadol, CAS number 75377-45-6
 Tramadol, CAS number 2914-77-4



Total ion chromatogram of LC/MS analysis

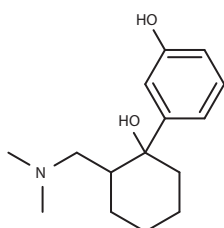
Column	ARION® Plus C18, 3 µm		
Dimensions	50 mm × 3.0 mm		
Part number	ARI-5720-IG30		
Mobile phase	A: 1% ammonium formate in water B: Methanol/1% ammonium formate in ACN 50/50 (v/v)		
Gradient elution	Time	A (%)	B (%)
	0	100	0
	0.5	100	0
	4.0	90	10
	5.0	90	10
	5.1	100	0
Flow rate	0.5 ml/min		
Temperature	Autosampler 15 °C, Column oven 30 °C		
Detection	MS/MS (Sciex, QTRAP 4500)		
LC system	ExionLC™		
Injection volume	2.0 µl		
Analytes	See MS method		



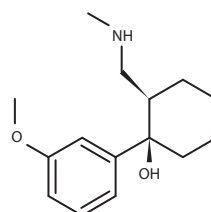
TRAMADOL BY LC/MS

MS method

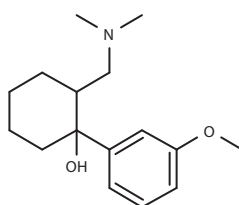
Compound name	Precursor Mass	Fragment mass	Type	Collision energy
O-Desmethyltramadol	250.1	58.1	Quantifier	35 ± 15 eV
	250.1	42.2	Qualifier	35 ± 15 eV
N-Desmethyltramadol	250.1	44.0	Quantifier	35 ± 15 eV
	250.1	232.2	Qualifier	35 ± 15 eV
Tramadol	264.1	58.1	Quantifier	35 ± 15 eV
	264.1	42.2	Qualifier	35 ± 15 eV
Tramadol-D3	267.1	58.1	Quantifier	35 ± 15 eV
	267.1	42.2	Qualifier	35 ± 15 eV



O-Desmethyltramadol



N-Desmethyltramadol



Tramadol

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