Waters™

アプリケーションノート

Diclofenac in Rat Plasma by LC-MS/MS

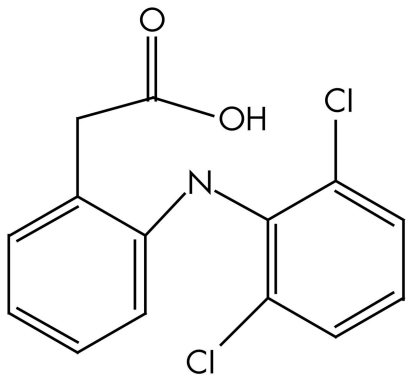
Waters Corporation

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

Abstract

This application brief highlights the analysis of diclofenac in plasma.

Introduction



DICLOFENAC

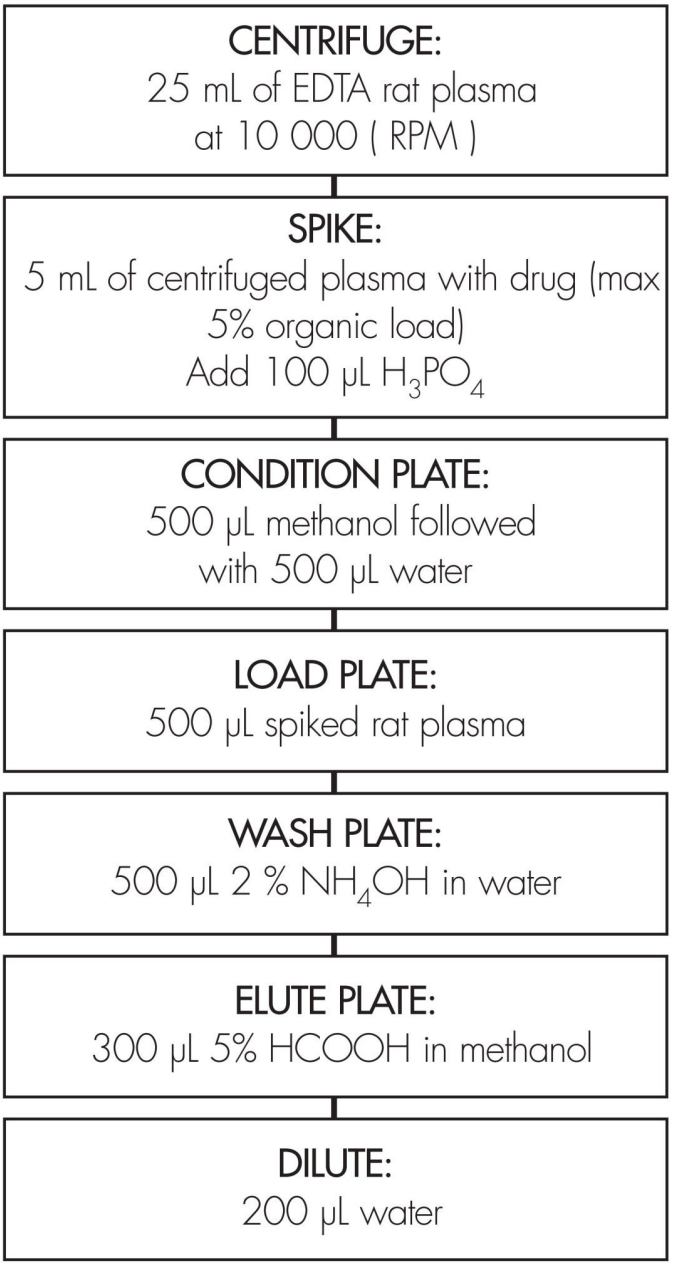
Experimental

HPLC Method

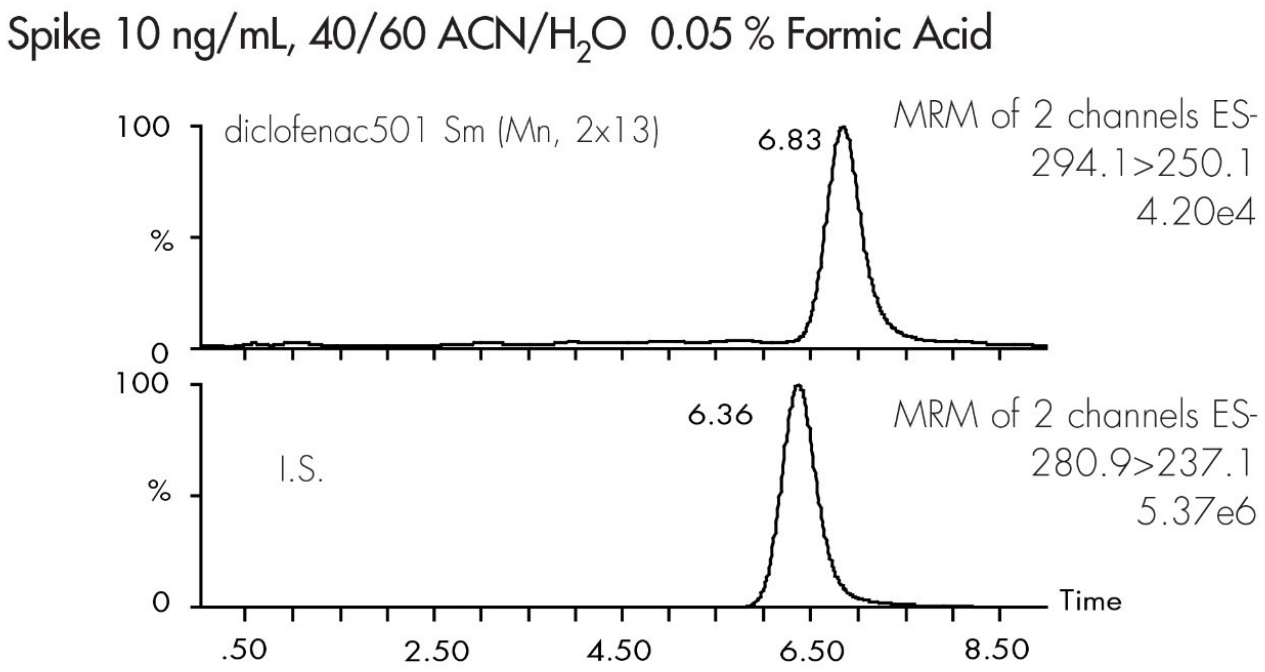
Column:	XTerra MS C_{18} 2.1 x 30 mm, 3.5 µm
Part number:	186000398
Mobile phase A:	0.05% HCOOH
Mobile phase B:	ACN
Isocratic mobile phase composition:	60% A; 40% B
Flow rate:	0.2 mL/min
Injection volume:	50 µL
Detection:	MS ESI
Instrument:	Alliance 2790, Micromass Quattro Ultima
Ion source:	ESI
Source temperature:	150 °C
Gas cell:	$1.5e^{-3}$ mbar, 12 eV
Desolvation temperature:	350 °C
Cone gas flow:	150 L/hr
Drying gas flow:	600 L/hr
Cone voltage:	30 V

OASIS® MAX EXTRACTION METHOD

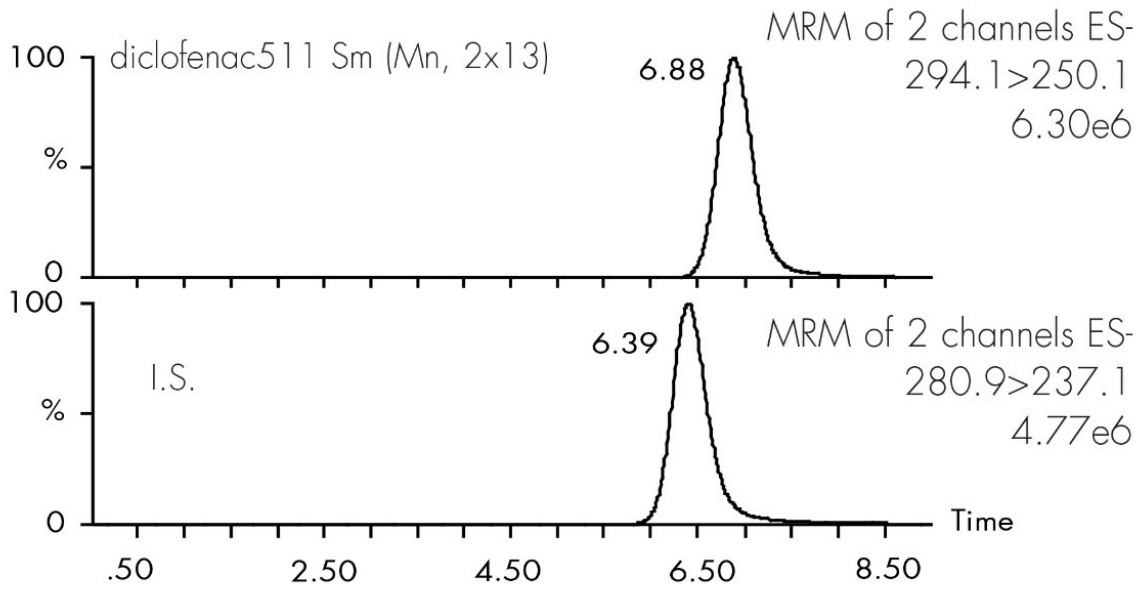
Oasis® MAX Extraction Plate, 10 mg/96-well
Part Number 186000375



Results and Discussion

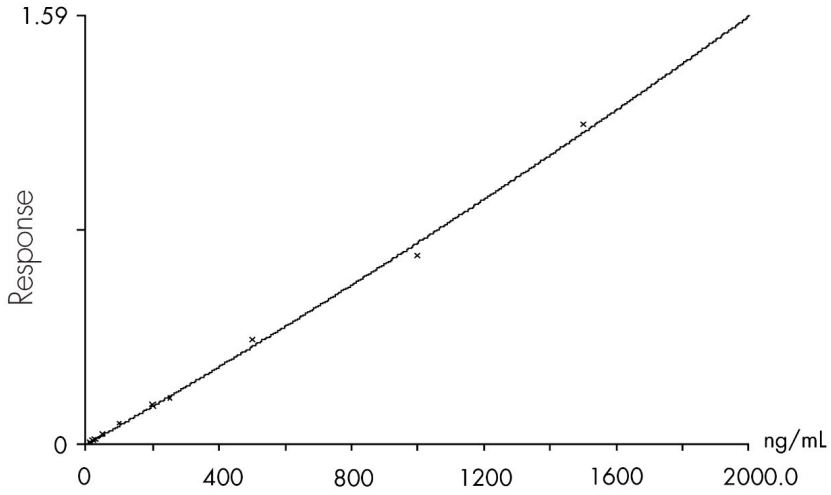


Spike 2001 ng/mL, 40/60 ACN/H_2O 0.05 % Formic Acid



DICLOFENAC (ng/mL)	mean	Standard deviation	Coefficient of variation (%)	Recovery (%)
10	10.26	0.3	3	102
25	24.06	0.83	3.5	96
100	101.68	2.69	2.7	101
250	250.05	8.13	3.3	100
500	496.41	27.09	5.5	99
1000	997.8	28.1	2.8	99
1500	1497.25	27.98	1.9	99

Compound name: Diclofenac
Coefficient of Determination: 0.997049
Calibration curve: 4.68008e-8* x^2 + 0.000702987* x+0.000144152
Response type: Internal Std (Ref 1), Area* (IS Conc./IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: $1/x^2$, Axis trans: None



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