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アプリケーションノート

Trimethoprim in Rat Plasma

Waters Corporation

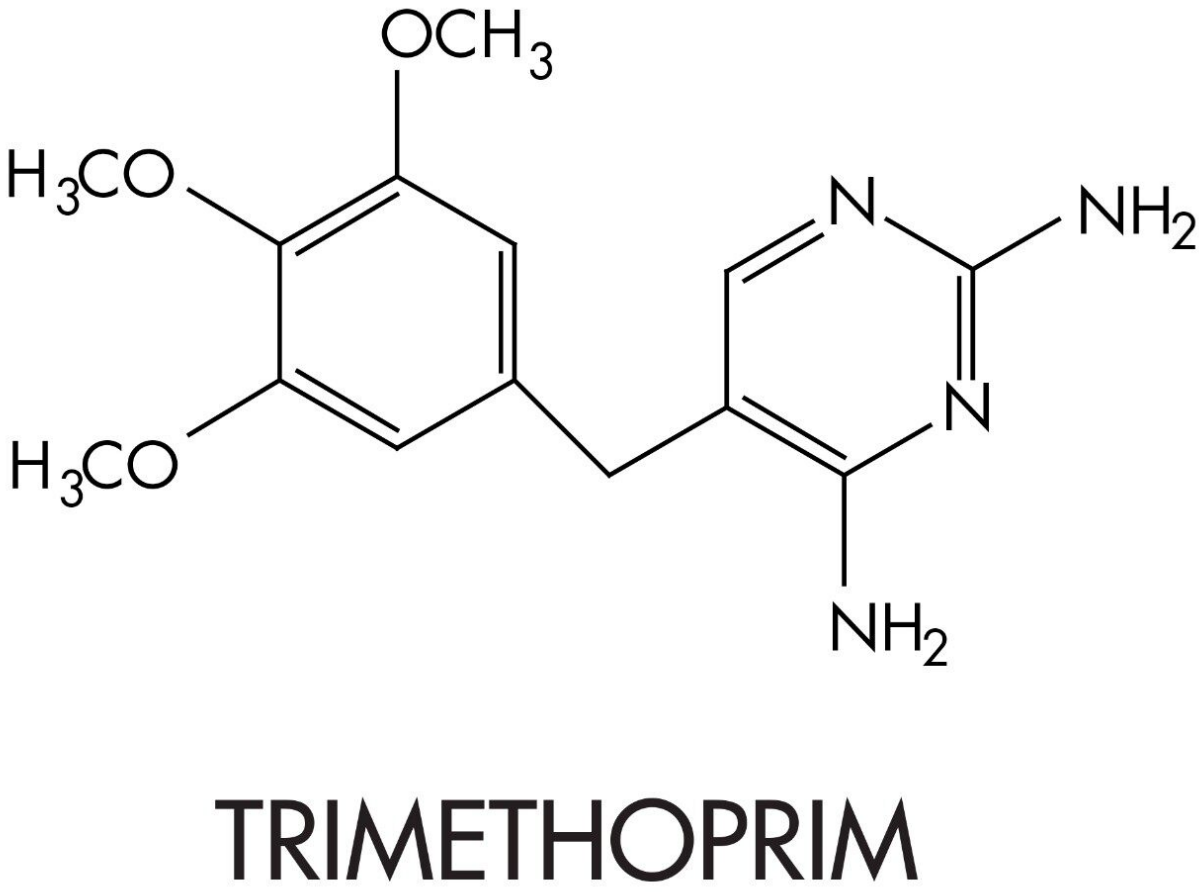
This is an Application Brief and does not contain a detailed Experimental section.

Abstract

This application brief demonstrates the analysis of Trimethoprim in Rat Plasma using Symmetry Columns.

Introduction

The compound analyzed in this study is Trimethoprim.



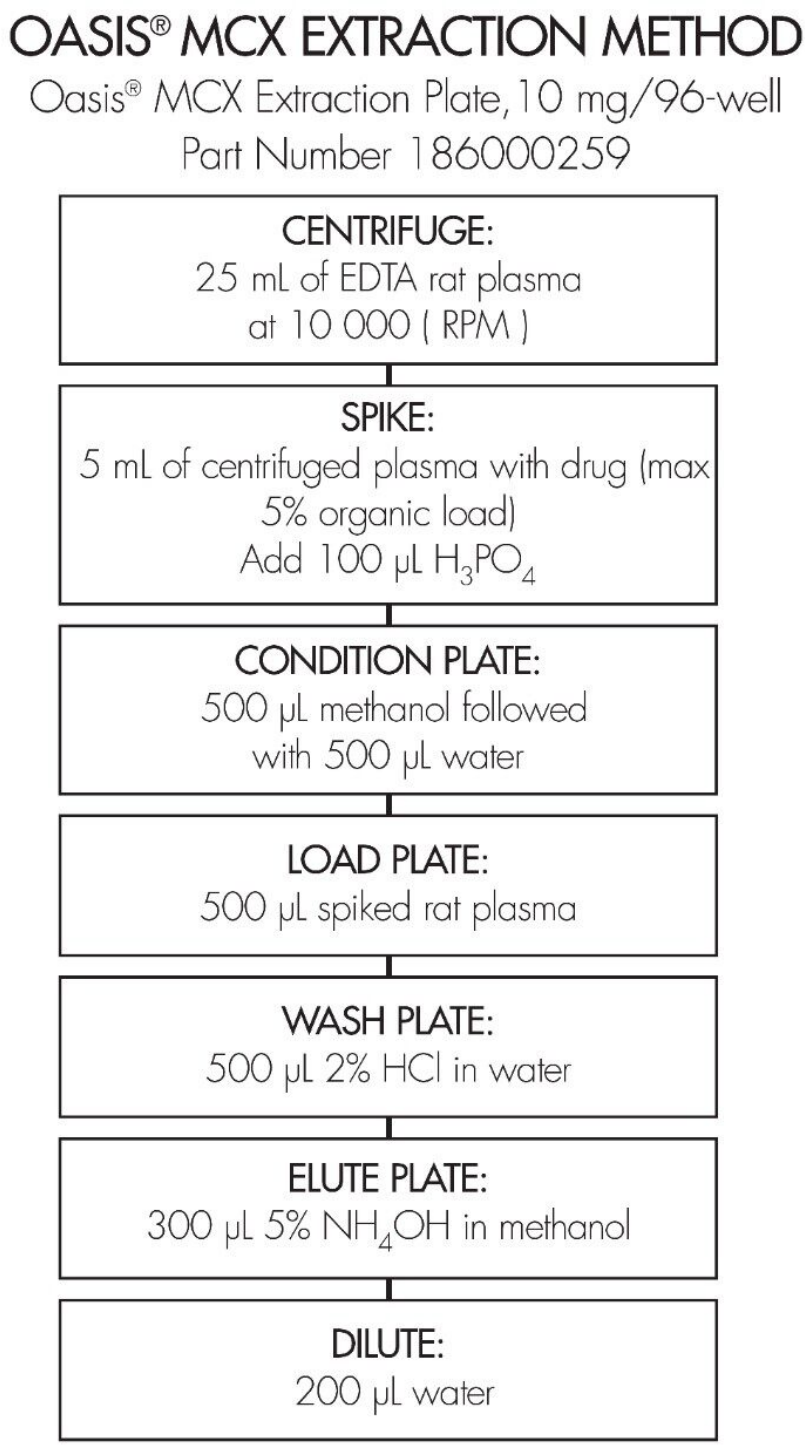
TRIMETHOPRIM

Experimental

HPLC Method

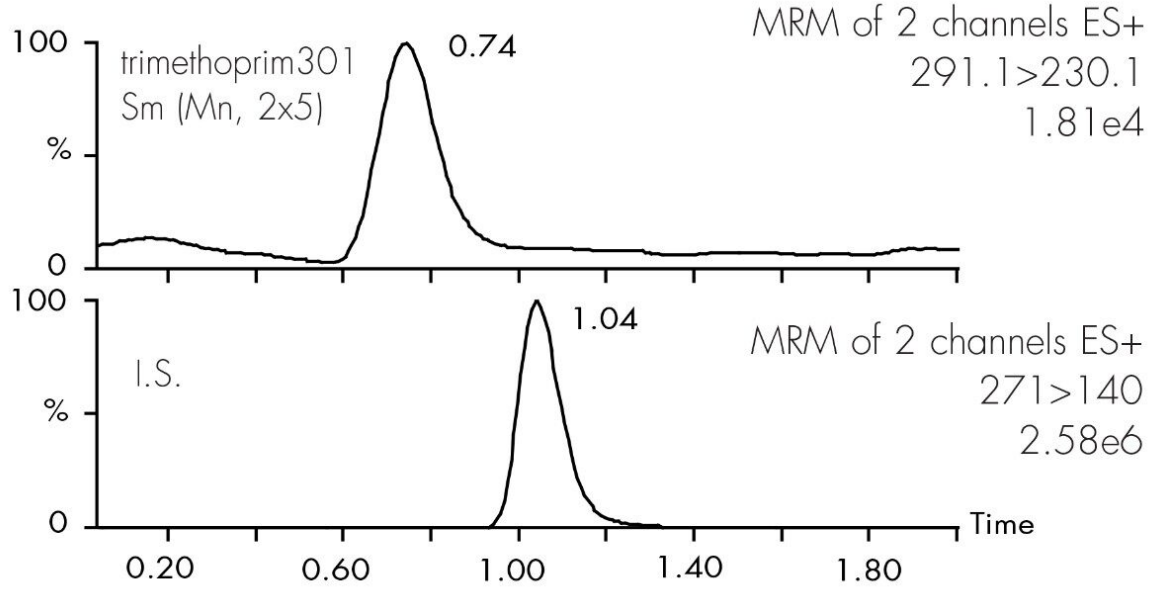
Column:	XTerra MS C_{18} 2.1 x 30 mm, 3.5 µm
Part number:	186000398

Mobile phase A:	1.0% NH4OH
Mobile phase B:	ACN
Isocratic mobile phase composition:	40% A; 60% B
Flow rate:	0.2 mL/min
Injection volume:	30 µL
Detection:	MS ESI+
Instrument:	Alliance 2790, Micromass Quattro Ultima
Ion source:	ESI+
Source temperature:	150 °C
Gas cell:	$1.5e^{-3}$ mbar, 25 eV
Desolvation temperature:	350 °C
Cone gas flow:	150 L/hr
Drying gas flow:	600 L/hr
Cone voltage:	20V

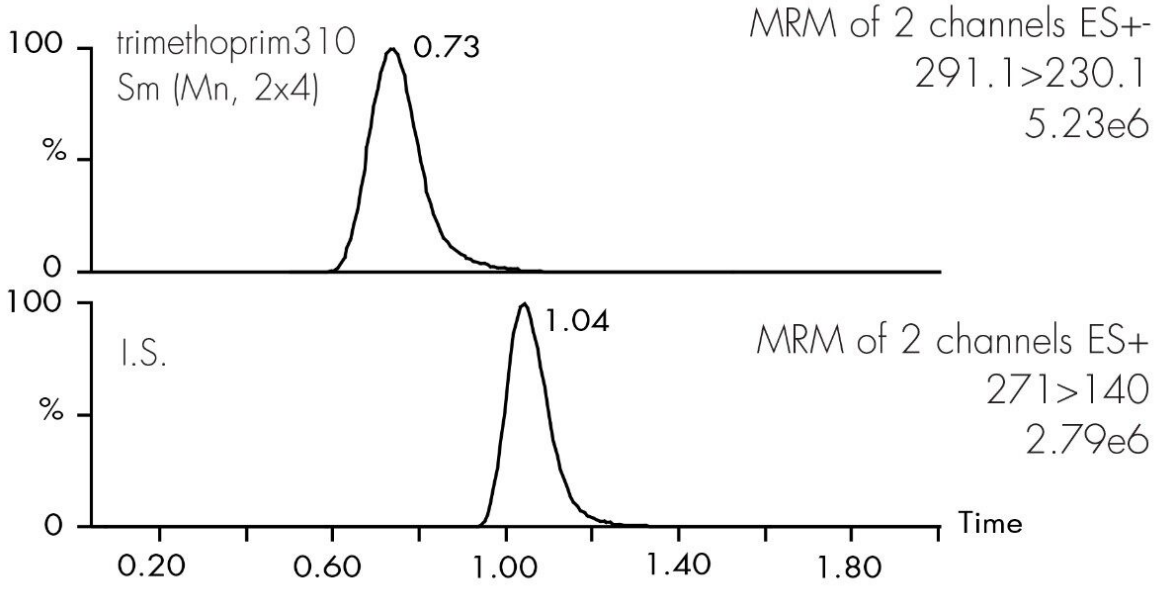


Results and Discussion

Spike 1 ng/mL, 60/40 ACN/H_2O 1.0 % NH_4OH

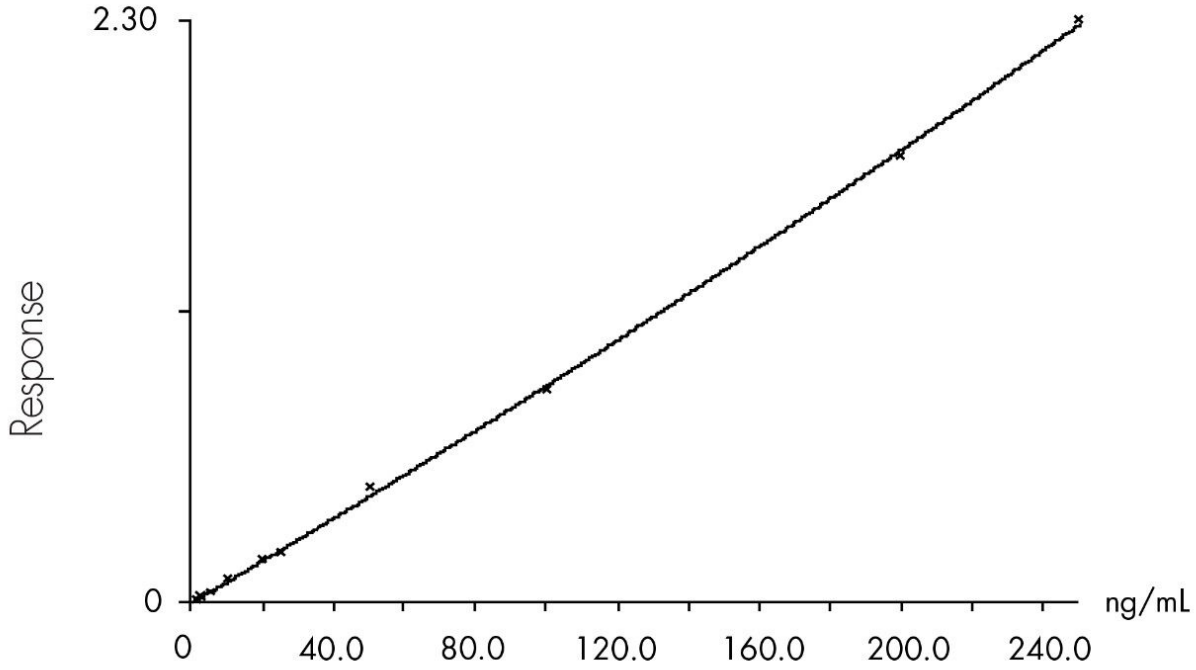


Spike 250 ng/mL, 60/40 ACN/H_2O 1.0 % NH_4OH



TRIMETHOPRIM (ng/mL)	Mean	Standard deviation	Coefficient of variation (%)	Recovery (%)
1	1.013	0.039	3.9	101
2.5	2.54	0.061	2.4	101
5	4.86	0.18	3.8	97
10	10.015	0.18	1.8	100
20	20.31	0.3	1.5	101
25	24.64	0.76	3.1	98
50	51.62	1.1	2.1	103
100	96.95	0.98	1	96
200	204.13	5.22	2.6	102
250	247.42	4.93	2	98

Compound name: Trimethoprim
Coefficient of Determination: 0.999608
Calibration curve: 3.83074e-6* x^2 + 0.00818910* x + 0.000423977
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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