Waters™

응용 자료

Clemastine in Rat Plasma- Oasis On-Line 2 Column Parallel Approach

Waters Corporation

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

Abstract

This application brief highlights about the analysis of clemastine in rat plasma.

Introduction

The compound analyzed in this sutudy was clemastine

Experimental

HPLC Condition

LC_1:	Alliance 2790–0.4 mL/min

LC_2:	Waters 515–4.0 mL/min
Loading mobile phase:	100% Water
Eluting mobile phase:	1 min gradient 5% ACN to 95% ACN
Loading mobile phase additive:	0.5% Formic Acid or NH_4OH
Extraction column temp.:	40 °C
Switching valve:	Rheodyne LabPro 10 ports, 2 position

MS Condition

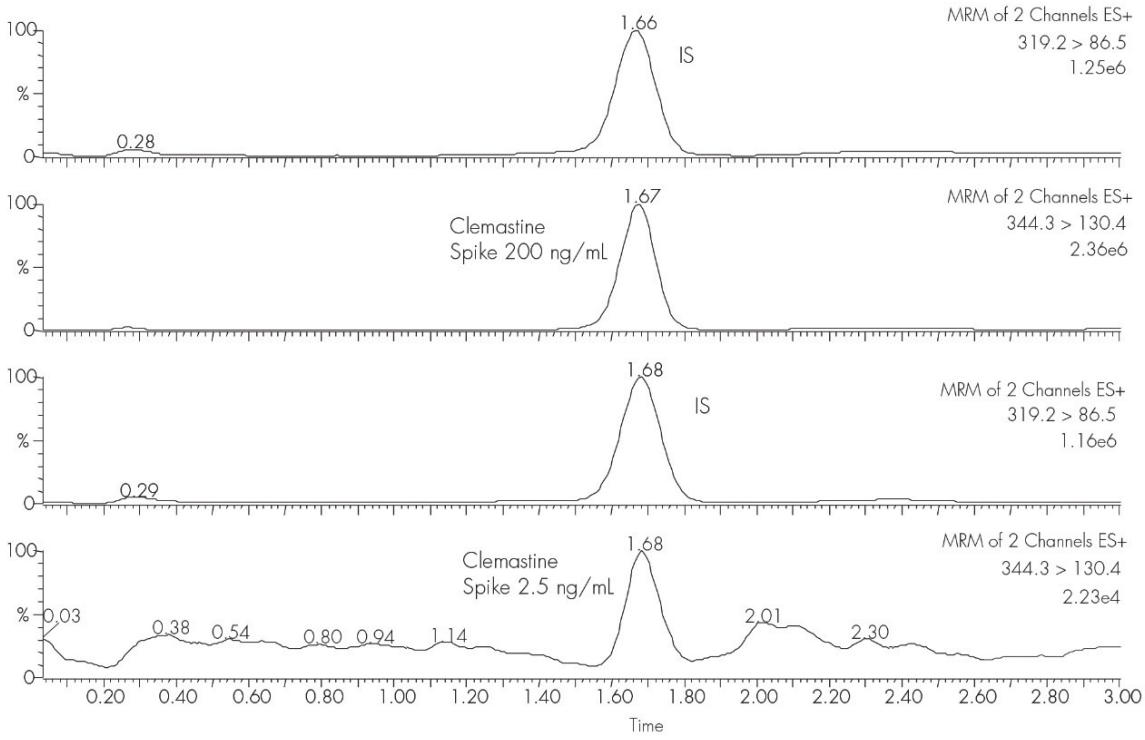
MS:	Quatro UltimaTriple Quadrupole
Source:	Electrospray positive
Source temperature:	150°C
Desolvation gas:	600L/hr
Gas cell:	$1.5e^{-3}$ mbar
Cone voltage:	20 volts
Collision energy:	20

Time	HPLC gradient flow 0.4 mL/min		Valve position
	A	B	Function
0.0	5	9.5	switch 2-position 1 to 2 (elution)
0.5			switch 3-position 2 to 1 (loading)
1.0	95	5	
1.7	95	5	
2.0	5	95	switch 2-position 2 to 1
			switch 3-position 1 to 2
			switch 1-position 1 to 2

A - Acetonitrile + 0.5% formic acid or 0.5% NH_4OH
B - Water + 0.5% formic acid or 0.5% NH_4OH

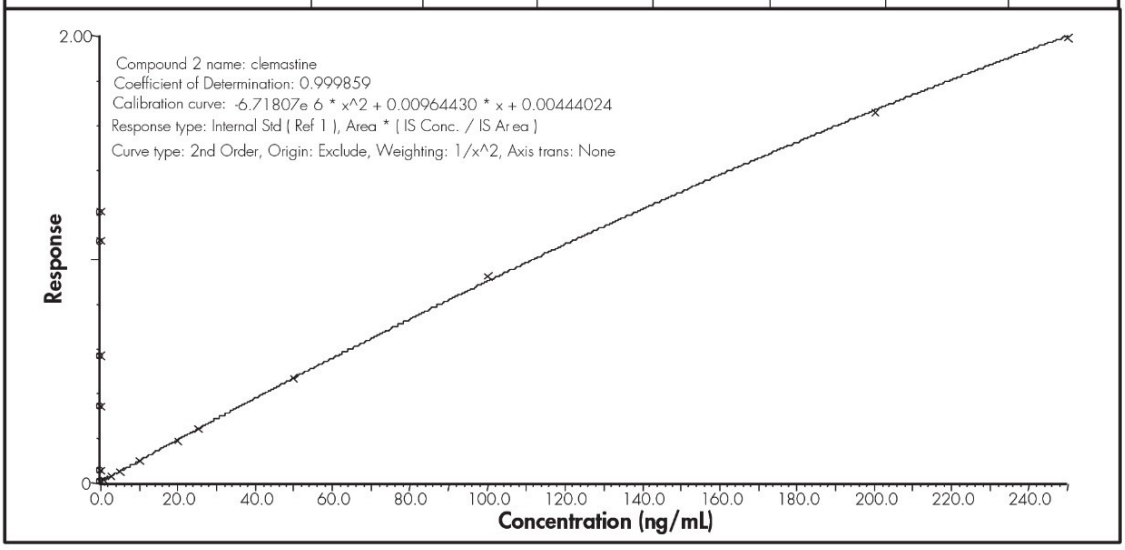
Results and Discussion

LOQ CHROMATOGRAM

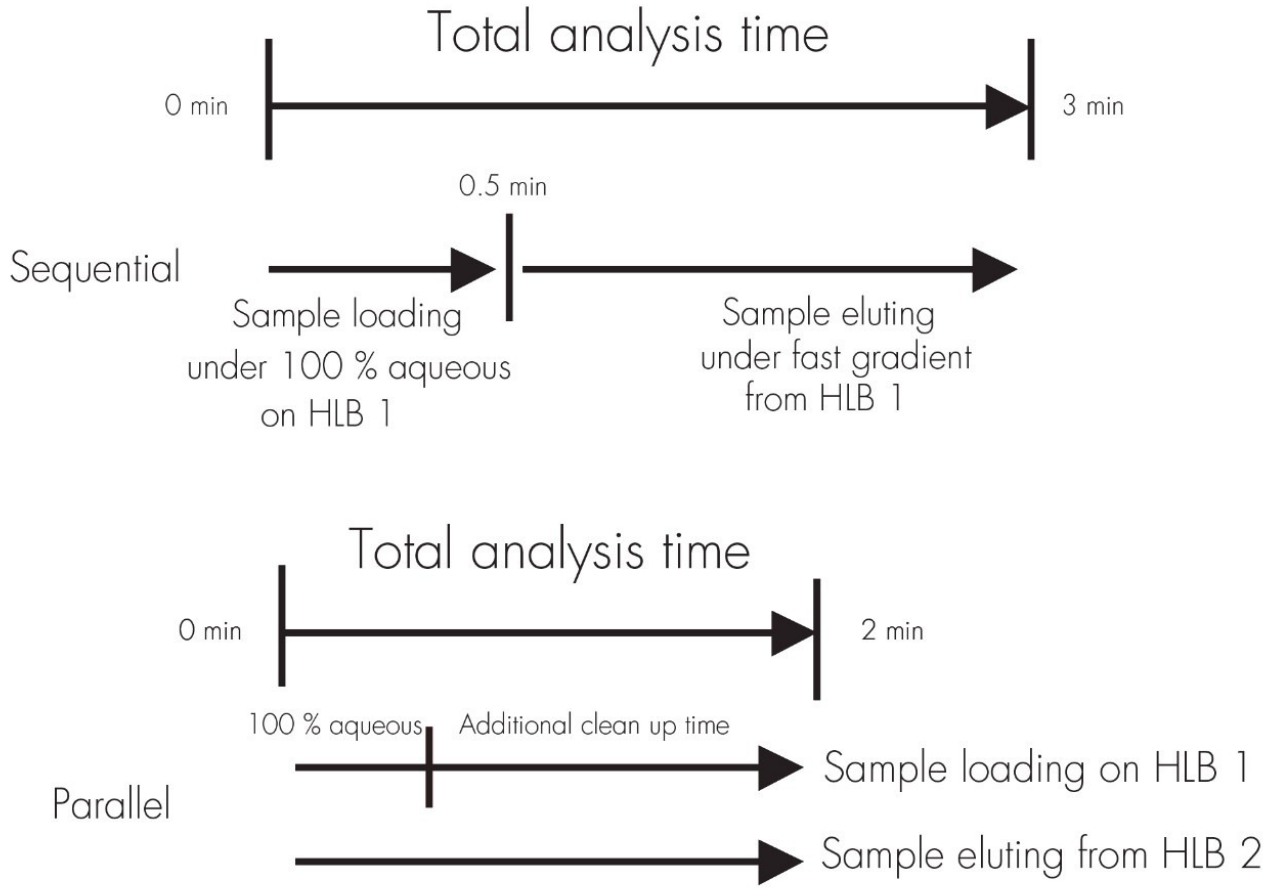


CALIBRATION CURVE

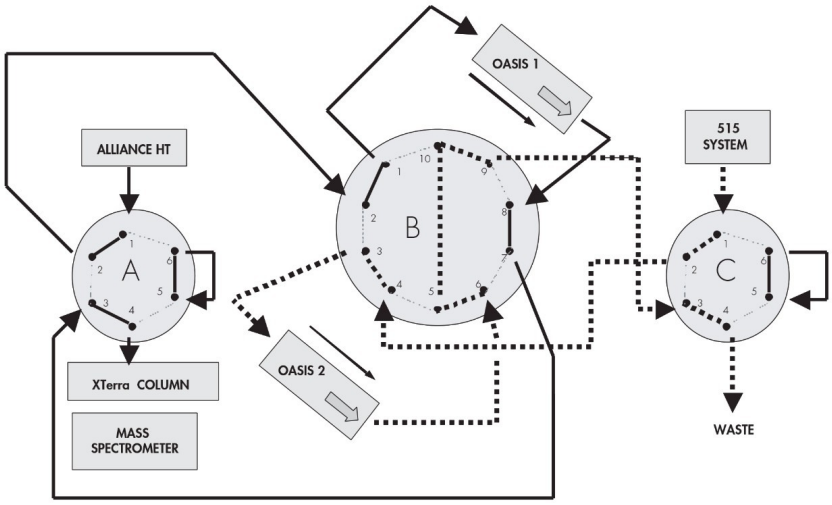
Conc. ng/mL N=6	1.0	2.5	5.0	10.0	100	200	250
Average	1.0	2.5	4.9	9.9	106.7	196.1	246.9
Standard Deviation	0.02	0.1	0.2	0.3	3.4	3.1	3.4
RSD %	1.6	5.0	3.2	3.3	3.1	1.6	1.3



SEQUENTAIL VS. PARALLEL



PARALLEL ON-LINE ANALYSIS



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WA31764.60, June 2003