Waters™

Application Note

Analysis of Warfarin, Dextromethorphan, Triprolidine, and Tetracaine using XBridge Shield RP_{18}

Waters Corporation

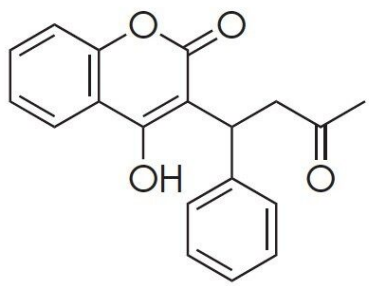
This is an Application Brief and does not contain a detailed Experimental section.

Abstract

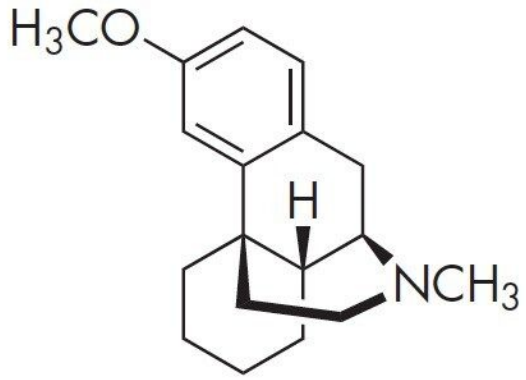
This application brief highlights the analysis of warfarin, dextromethorphan, triprolidine, and tetracaine using XBridge Shield RP_{18} columns.

Introduction

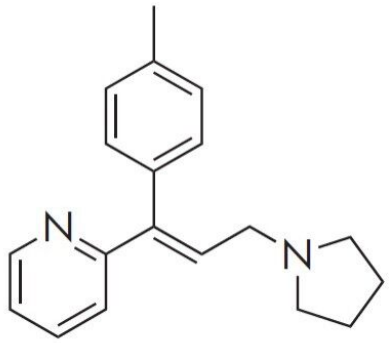
Warfarin, an anti-coagulants old as coumadin, is used to inhibit the synthesis of clotting factors. Dextromethorphan is an antitussive drug found in many common cold and cough formulations. Triprolidine is an antihistamine that is found in common allergy formulations. Tetracaine is a local anesthetic of the ester-linkage type, related to procaine.



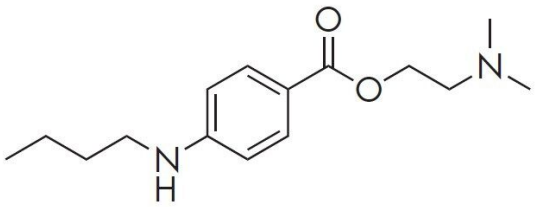
1. Warfarin



2. Dextromethorphan HCl



3. Triprolidine HCl



4. Tetracaine

Experimental

Test Conditions

Columns:	XBridge Shield RP18 4.6 X 50 mm, 3.5 µm p/n: 186003042
Mobile phase A:	25 mM KH_2PO_4, pH 7
Mobile phase B:	MeOH
Flow rate:	1.0 mL/min
Injection volume:	10 µL
Sample Concentration and Diluent:	10 µg/mL in H_2O
Temp.:	30 °C
Sampling Rate:	5 points /second
Detection:	UV @ 280 nm
Time Constant:	1.0
Needle Wash:	5/95 MeOH/H_2O
Instrument:	Alliance 2695 with 2996 PDA

Gradient

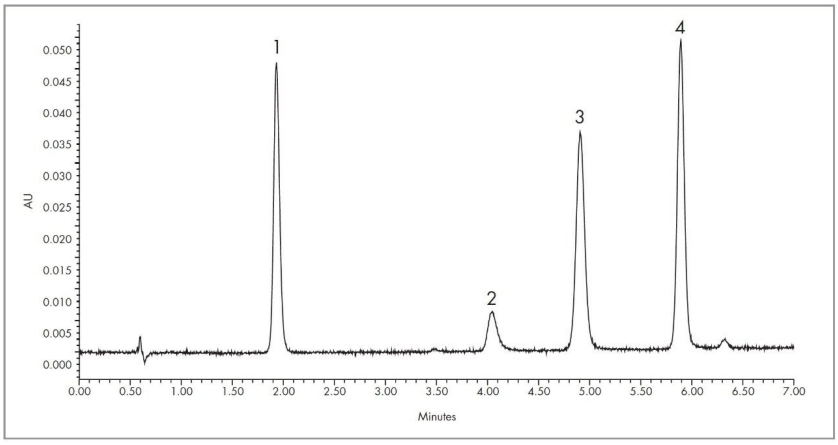
Time(min)	%A	%B
0.0	60	40
7.0	20	80
7.5	60	40

Time(min)	%A	%B
10.0	60	40

System Suitability Parameters

	Retention Time (min)	USP Tailing Factor	Width at 4.4%	USP Resolution
Warfarin	1.93	1.11	0.147	
Dextromethorphan HCl	4.04	1.23	0.192	15.35
Triprolidine HCl	4.90	1.05	0.216	5.32
Tetracaine	5.89	1.02	0.183	6.52

Results and Disscussion



Compounds: 1. Warfarin 2. Dextromethorphan HCl 3. Triprolidine HCl 4. Tetracaine.

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