

Analysis of Warfarin, Dextromethorphan, Triprolidine, and Tetracaine using XBridge Shield RP₁₈

Waters Corporation



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

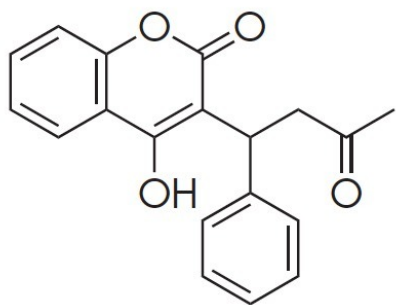
Abstract

This application brief highlights the analysis of warfarin, dextromethorphan, triprolidine, and tetracaine using XBridge Shield RP₁₈ columns.

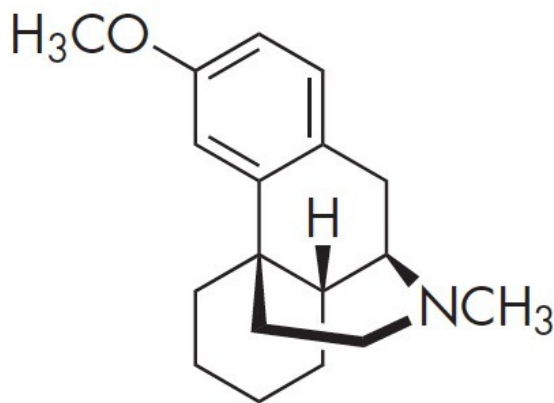
Introduction

Warfarin, an anti-coagulants old as coumadin, is used to inhibit the synthesis of clotting factors.

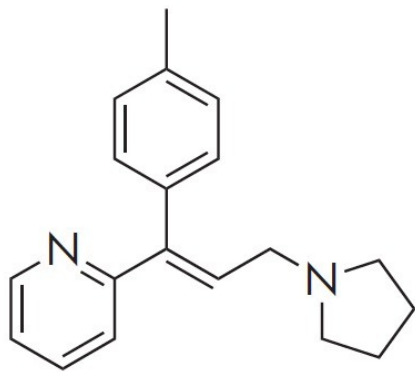
Dextromethorphan is an antitussive drug found in many common cold and cough formulations. Triprolidine is an antihistamine that is found in common allergy formulations. Tetracaine is a local anesthetic of the ester-linkage type, related to procaine.



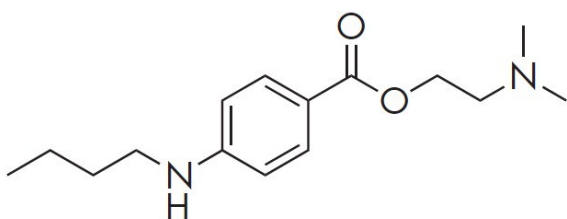
1. Warfarin



2. Dextromethorphan HCl



3. Triprolidine HCl



4. Tetracaine

Experimental

Test Conditions

Columns:	XBridge Shield RP18 4.6 X 50 mm, 3.5 μ m 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 μ L
Sample Concentration and Diluent:	10 μ g/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/H₂O

Instrument: Alliance 2695 with 2996 PDA

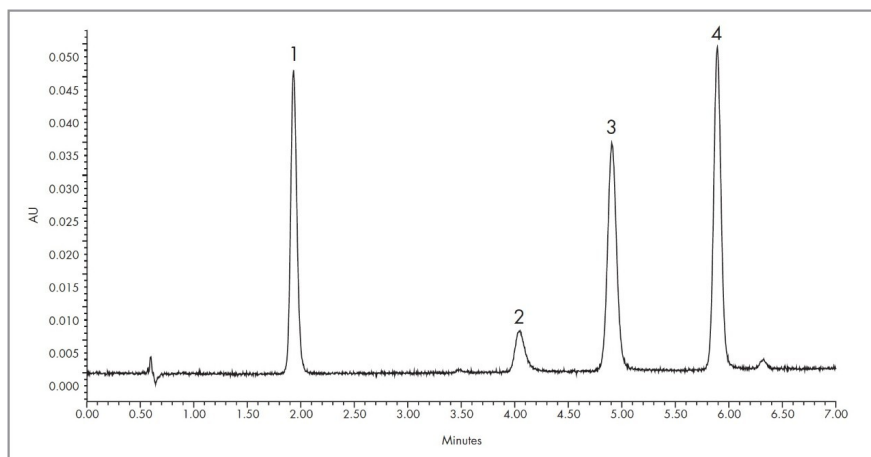
Gradient

Time(min)	%A	%B
0.0	60	40
7.0	20	80
7.5	60	40
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
Tripolidine HCl	4.90	1.05	0.216	5.32
Tetracaine	5.89	1.02	0.183	6.52

Results and Discussion



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

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