



Ranitidine in Serum

Waters Corporation



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

Abstract

This application brief highlights the analysis of ranitidine in serum using Symmetry Shield RP₈ Columns.

Introduction

The compounds analyzed in this study are:

- 1. Sulfanilamide (I.S.)
- 2. Ranitidine

$$H_2N$$
 — SO_2NH_2

1. Sulfanilamide

$$H_3C$$
 N
 S
 H
 N
 CH_3
 $CHNO_2$

2. Ranitidine

Experimental

HPLC Method

Column: Symmetry Shield RP $_8$, 3.9 x 150 mm, 5 μm

Guard column: Symmetry guard column, 3.9 x 20 mm, 5 μ m

Part numbers: Column - WAT200655, Guard - WAT200675

Mobile phase: 20 mM potassium phosphate, pH 3.0/methanol

97:3

Flow rate: 1.0 mL/min

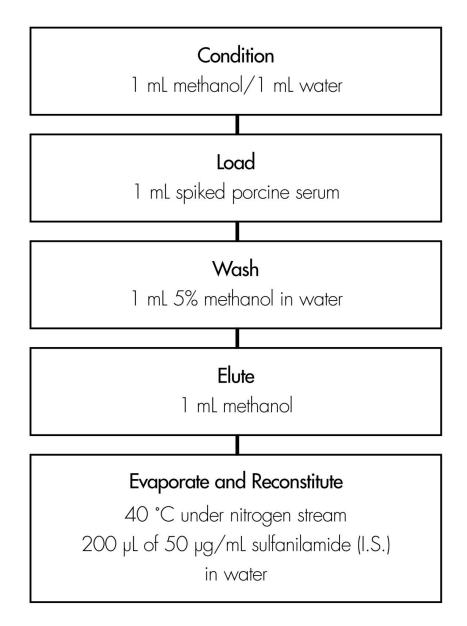
Injection volume: 50 μ L of reconstituted porcine serum extract

Temperature: 30° C

Detection: UV @ 220 nm

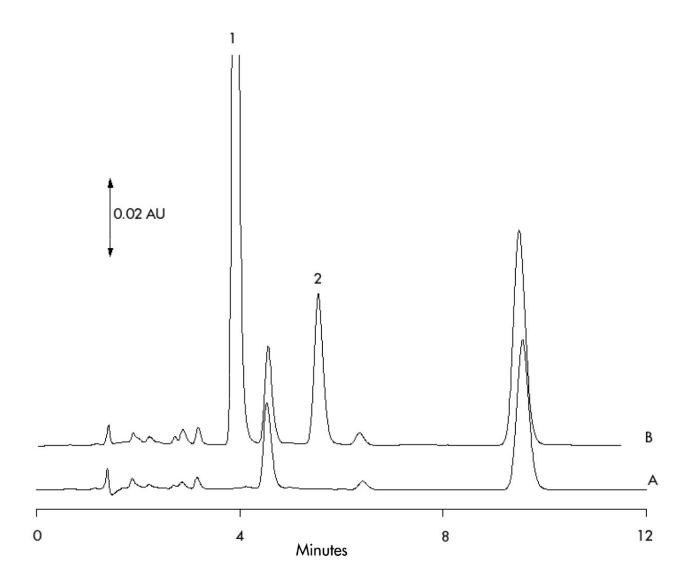
Oasis® HLB Extraction Method

Oasis® HLB 1 cc/30mg Extraction Cartridge Part Number WAT094225



Results and Discussion

Compound	Concentration µg/mL	% Recovery	%RSD (n=6)
Ranitidine	0.100	104%	1.9%
	0.500	102%	1.7%



Chromatogram of Serum Extracts: A) Blank B) Spiked Sample.

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