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アプリケーションノート

Acidic Veterinary Drugs in Horse Urine - LC-UV

Waters Corporation



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

Abstract

This application brief demonstrates analysis of acidic veterinary drugs in horse urine by LC-UV.

Introduction

The compounds used in this study are –

- 1. Ketoprofen
- 2. Naproxen
- 3. Phenylbutazone
- 4. Ibuprofen
- 5. Meclofenamic acid

ISTD: Dichlorobenzoic acid

Ibuprofen

Naproxen

Phenylbutazone

Meclofenamic acid

Ketoprofen

Experimental

Conditions

Column: Xterra MS C_{18} 4.6 x 100 mm, 3.5 μm

Part Number: 186000436

Mobile phase A: 0.1% CH₃COOH

Mobile phase B: MeOH

Flow rate: 1.0 mL/min

Injection volume: $40 \, \mu L$

Detection: UV @ 221nm

Instrument: Alliance 2695, 2996 PDA

Gradient

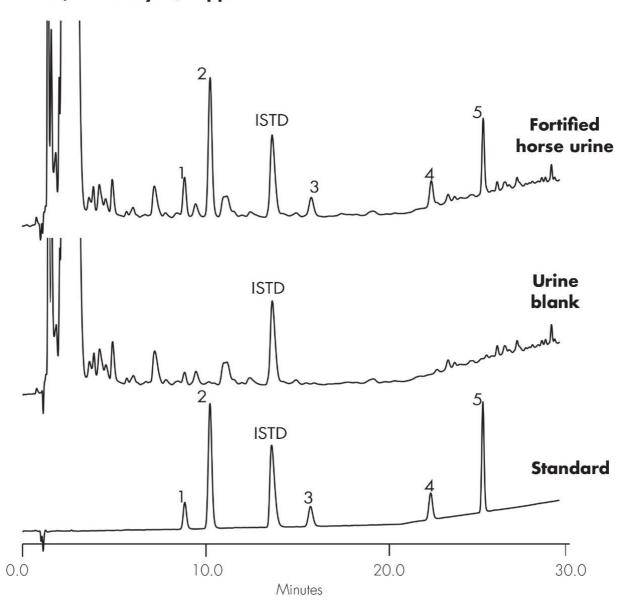
Time (min)	Profile	
	%A	%B
0.0	50	50
2.0	50	50
20.0	40	60
30.0	10	90

Oasis® Method
Oasis® MAX, 6 cc (150 mg)
Extraction Cartridge
Part Number 186000369

Prepare Sample Hydrolysis • add 1 mL of 10M KOH to 10 mL of spiked urine. • heat at 60° for 15 minutes. • allow to cool to room temperature • adjust to pH 2 with H₃PO₄. • dilute 1:1 with reagent water Condition 3 mL each: MTBE/MeOH/H2O Load 10 mL diluted urine onto Oasis® cartridge 1-2 mL/min Wash 1 3 mL 50 mM NaOAc (pH 7) Wash 2 4 mL methanol Elutes 4 mL MTBE/MeOH/TFA (89:10:1) Evaporate and Reconsitute Nitrogen @ 45° C

MTBE - methyl t-butyl ether TFA - trifluoroacetic acid





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