# Waters™

Note d'application

# Acidic Veterinary Drugs in Horse Urine - LC-MS

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-MS.

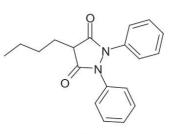
# Introduction

The compounds used in this study are -

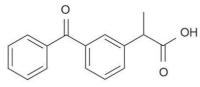
- 1. Ketoprofen
- 2. Naproxen
- 3. Phenylbutazone
- 4. Ibuprofen
- 5. Meclofenamic acid

## Naproxen

Meclofenamic acid



Phenylbutazone



Ketoprofen

Compounds.

# Experimental

#### Conditions

Column: Xterra MS  $C_{18}$  2.1 x 100 mm, 3.5  $\mu m$ 

Part Number: 186000404

Mobile phase A: 20 mM CH<sub>3</sub>COONH<sub>4</sub>, pH 4.0

Mobile phase B: MeOH

Flow rate: 0.175 mL/min

Injection volume: 10  $\mu$ L

Detection: Micromass ZQ

Instrument: Alliance 2695

#### Gradient

Time (min)	Profile	
	%A	%B
0.0	50	50
10.0	10	90

#### Oasis® Method Oasis® MAX, 6 cc (150 mg) Extraction Cartridge

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/H<sub>2</sub>O

Load 10 mL diluted urine onto Oasis® cartridge 1-2 mL/min

Wash 1 3 mL 50 mM NaOAc (pH 7)

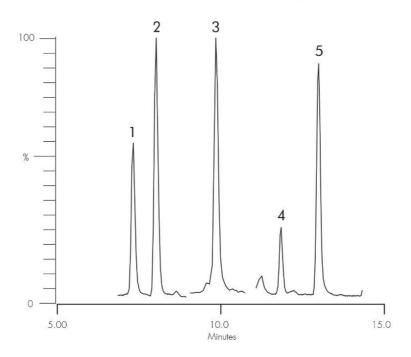
> Wash 2 4 mL methanol

Elute 4 mL MTBE/MeOH/TFA (89:10:1)

Evaporate and Reconsitute Nitrogen @ 45° C

MTBE - methyl t-butyl ether TFA - trifluoroacetic acid

#### **Reconstructed Total Ion Chromatogram**



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Alliance HPLC System <a href="https://www.waters.com/534293">https://www.waters.com/534293</a>

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