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Fluoroquinolone Antibiotics in Beef Kidney

- Tandem Oasis MAX-MCX Method

Waters Corporation



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

Abstract

This application brief demonstrates analysis of fluoroquinolone antibiotics in beef kidney - Tandem Oasis MAX-MCX method.

Introduction

The compounds used in this study are - Ciprofloxacin and Enrofloxacin.

Experimental

STEP 1: OASIS® MAX 6 cc (150 mg) Cartridge Removes basic and neutral interferences

CONDITION: 1 mL methanol, 1 mL 5 N NaOH, 1 mL water LOAD: 5 mL of prepared sample WASH 1: 1 mL 5% ammonia in water WASH 2: 1 mL methanol **ELUTE**: 2 mL of 0.2N HCl in methanol

STEP 2: OASIS® MCX 1 cc (30 mg) Cartridge Removes acidic interferences

CONDITION:
1 mL methanol

LOAD:
Eluent from Step 1

WASH:
2 mL of methanol

ELUTE:

 $500\mu L$ of 10% NH $_4$ OH in methanol into a $1\,mL$ volumetric flask

Neutralize with formic acid and bring to volume with mobile phase.

Mobile phase Conditions

Column:

Atlantis dC₁₈ 4.6 x 150 mm, 5 μ m

Mobile phase:

73% 0.2% NFPA (nonafluoropentanoic acid)

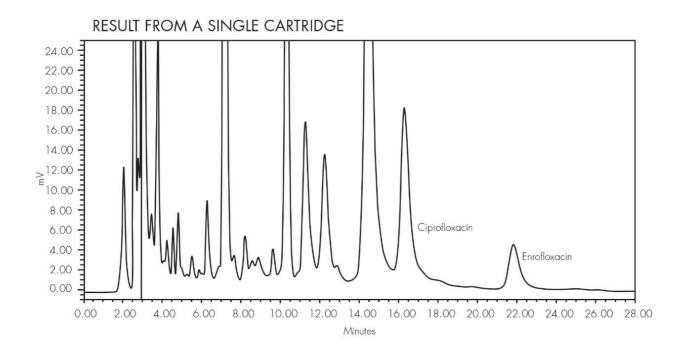
4% MeOH

23% ACN

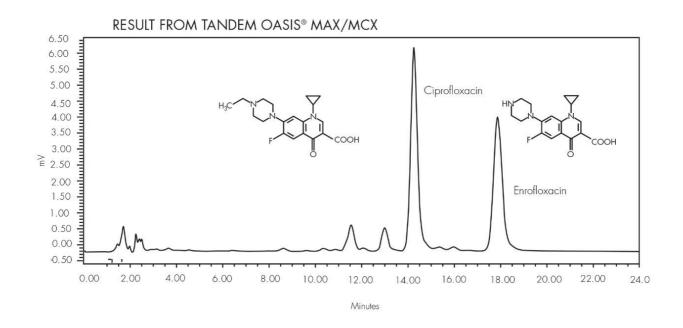
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Results and Discussion

HPLC Chromatogram of Fluoroquinolone Antibiotics in Beek Kidney by Single Cartridge Extraction



HPLC Chromatogram of Fluoroquinolone Antibiotics in Beek Kidney by Tandem Oasis MAX/MCX Extraction



Conclusion

Comparison of results of Tandem Oasis MAX-MCX vs. Single Cartridge was carried out.

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