

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 µL of 10% NH₄OH in methanol into
a 1 mL volumetric flask

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

Mobile phase Conditions

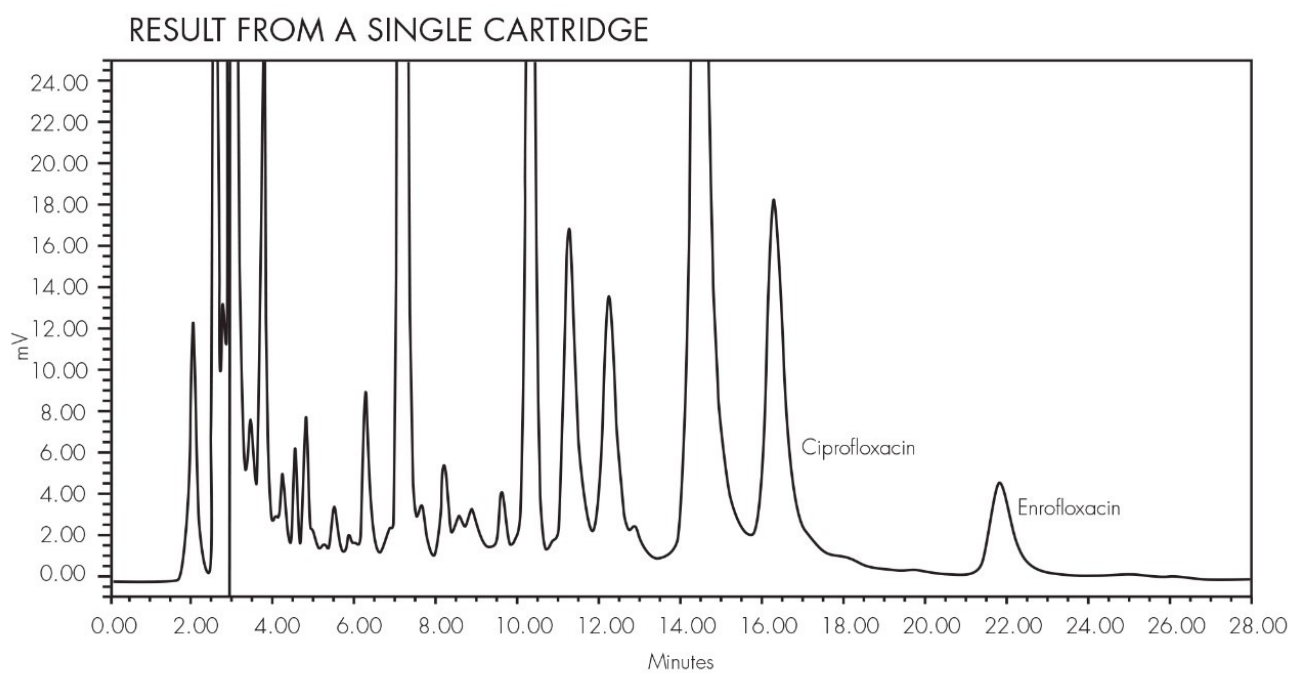
Column:

Atlantis dC₁₈ 4.6 x 150 mm, 5 µm

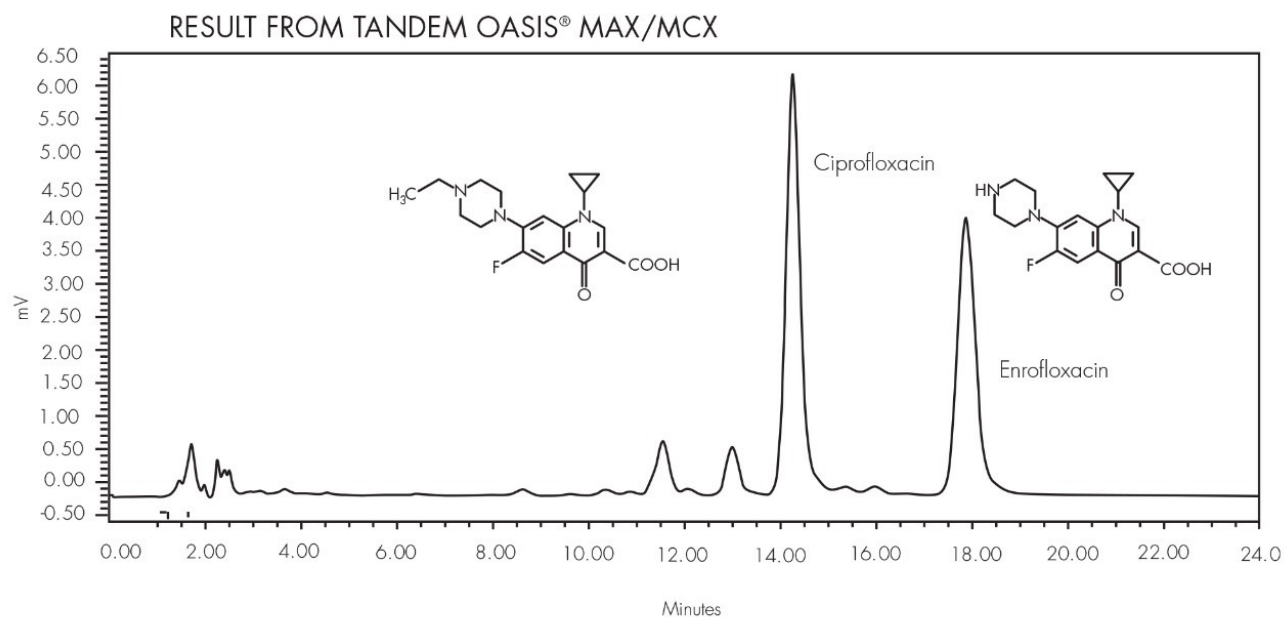
Mobile phase: 73% 0.2% NFPA (nonafluoropentanoic acid)
4% MeOH
23% ACN
T=30

Results and Discussion

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



HPLC Chromatogram of Fluoroquinolone Antibiotics in Beef 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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