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Application Note

Nalidixic Acid Antibiotics by LC-MS

Waters Corporation



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

Abstract

This application brief demonstrates analysis of nalidixic acid antibiotics by LC-MS.

Introduction

The compounds used in this study are -

Compound	MW
1. Cinoxacin	262.2
2. Oxolinic Acid	261.2
3. Nalidixic Acid	232.2

Cinoxacin

Oxolinic acid

Nalidixic acid

Experimental

LC Conditions

Column: Atlantis dC₁₈, 2.1 x 20 mm \emph{IS} , 3.0 μ m, (p/n:

186002058)

Mobile phase A: Water

Mobile phase B: Methanol

Mobile phase C: 1% HCOOH in Water

Flow rate: 0.4 mL/min

Injection volume: $2 \mu L$

Sample concentration: 10 μ g/mL

Temperature: 30 °C

Instrument: Alliance 2795 and Waters ZQ

Gradient

Time	Profile		
(min)	%A	%B	%C
0.0	50	40	10
1.0	30	60	10

MS Conditions

Waters ZQ

ES+ capillary (kV):

Waters ZQ Cone (V): 5 Extractor: 3 RF lens: 0.1 Source temp. (°C): 150 Desolvation temp. (°C): 400 Cone gas flow (L/Hr): 50 Desolvation gas fLow(L/Hr): 500 LM resolution: 15 HM resolution: 15

Results and Discussion

Ion energy:

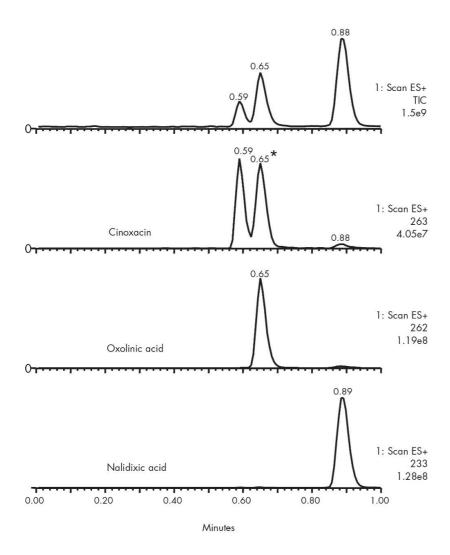
Multiplier (V):

The top figure is the total ion current, followed by the extracted ion signals for each of the three analytes.

0.5

650

^{*}The "extra" peak in the cinoxacin panel is the isotope from oxolinic acid.



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Alliance HPLC System https://www.waters.com/534293

WA31787.18, June 2003

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