

Application Report 01

Analysis of Tetracycline Antibiotics on Discovery HS F5

This application demonstrates the suitability of Discovery HS F5 for the analysis of tetracycline antibiotics.

Oxytetracycline, tetracycline, chlortetracycline and doxycycline structures are presented to the right.

The optimized chromatogram obtained on Discovery HS F5 is presented below.

Key Words

tetracyclines, antibiotics, Discovery HS F5, 567516-U

Author: David S. Bell

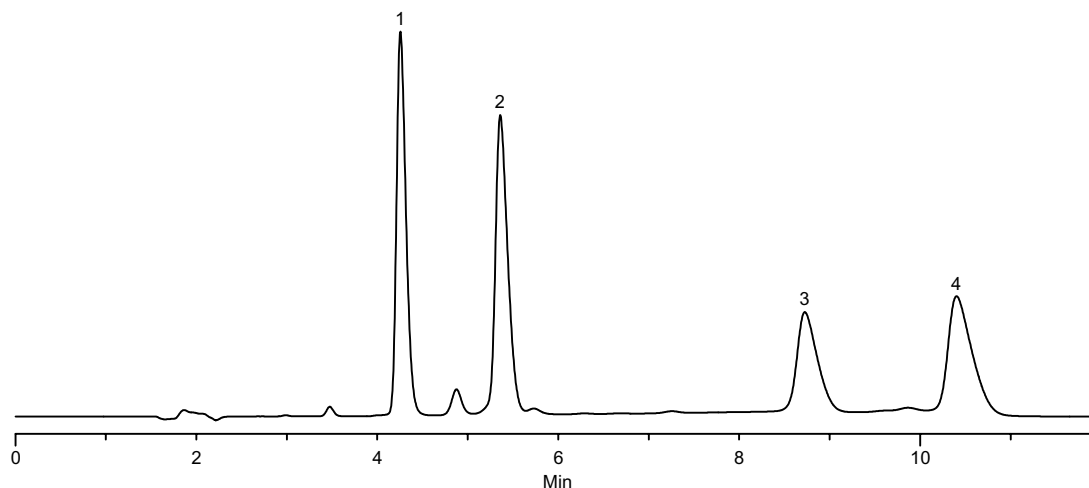
Raw Data File Name(s):

1) 1450\42000013.D

Acquisition System:

LAB 30, System 2

Notebook Reference: 1450-45



G002014

Conditions

Column: Discovery HS F5, 15cm x 4.6mm ID, 5µm

Cat. No.: 567516-U

Mobile Phase: (70:30, v/v) 5mM oxalic acid (pH 2.3, unadjusted): Acetonitrile

Temperature: 35°C

Flow Rate: 1mL/min

Injection Volume: 10µL

Detection: UV, 353nm

Sample: 100µg/mL each (tetracycline, oxytetracycline, doxycycline and chlortetracycline) in 5mM oxalic acid

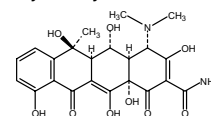
Note: Oxalic acid used for LC/MS compatibility.

Peak IDs

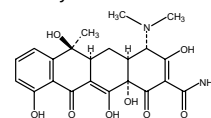
1. Oxytetracycline
2. Tetracycline
3. Chlortetracycline
4. Doxycycline

Structures

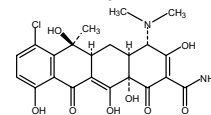
Oxytetracycline - G000930



Tetracycline - G000932



Chlortetracycline - G000934



Doxycycline - G000931

