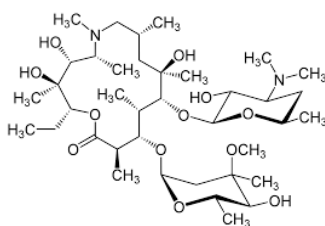
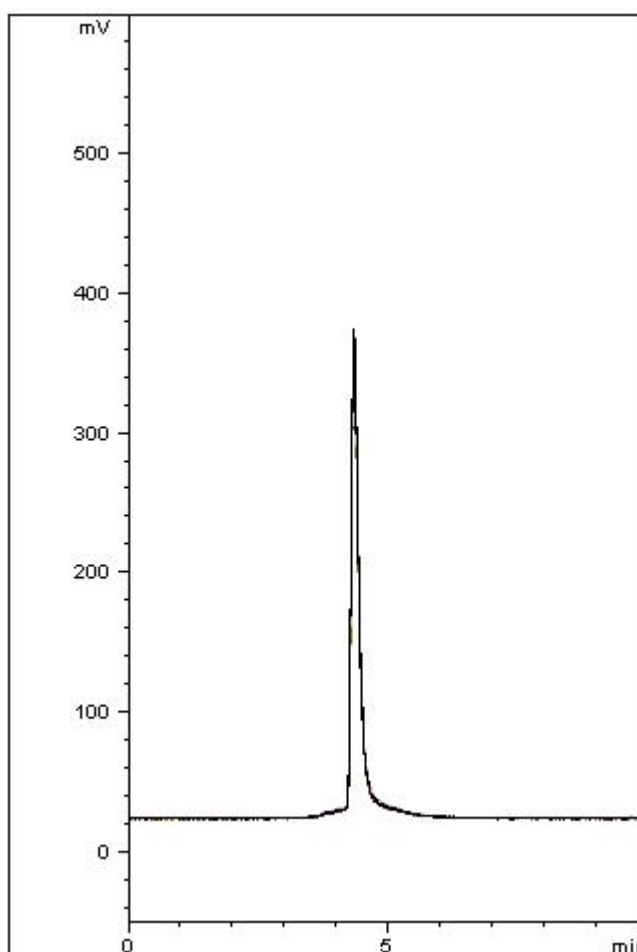


Azithromycin Analyzed with HPLC ELSD – AppNote

Retention of Macrolide Antibiotic

Azithromycin has weak UV absorbance and typical asymmetric peak profile with low Column efficiency in many HPLC-UV methods. This ELSD Method shows good retention and peak shape along with excellent sensitivity. This method is very reproducible with %RSD values less than 0.1%, as shown in the 10 injection overlay below.



Peak:
Azithromycin

Method Conditions

Column: Cogent Bidentate C8™, 4μm, 100Å

Catalog No.: [40008-10P](#)

Dimensions: 4.6mm x 100mm

Mobile Phase:

A: Isopropanol

B: Acetonitrile / 0.1% Triethylamine (TEA) (v/v)

Gradient:

Time (minutes)	%B
0	100
1	100
2	85
3	85
4	100
5	100

Flow rate: 1.0 mL/minute

Detection: ELSD (Evaporative Light Scattering Detector) Gain: 9; Temperature: 80°C;

Injection vol.: 1 µL

Sample Preparation: Reference standards (1 mg/mL) in diluent of 50:50 Acetonitrile / DI Water (v/v)

t₀: 1.50 Minutes

K': 2

Note: Azithromycin is a semi-synthetic macrolide Antibiotic of the Azalide class. Azithromycin inhibits bacterial protein synthesis by binding to the 50S ribosomal subunit of the bacterial 70S ribosome.

Note 2: Capacity is determined using the following equation: $k = (t_R - t_0)/t_0$

- t_R = Retention Time of an Analyte Peak
- t_0 = Retention Time of non-Retained Peak



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MicroSolv Technology Corporation
9158 Industrial Blvd. NE, Leland, NC 28451

Tel: (732) 380-8900
Fax: (910) 769-9435
Email: customers@mtc-usa.com
Website: www.mtc-usa.com