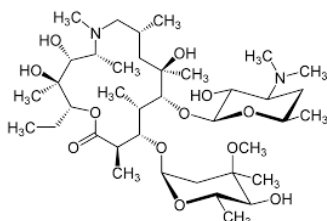
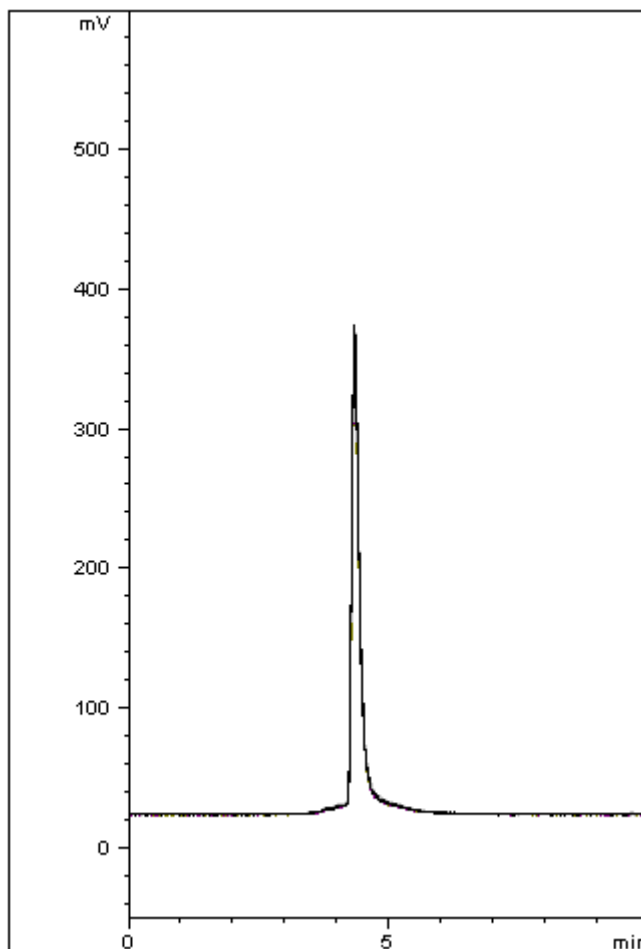


## Azithromycin Analyzed with HPLC ELSD - AppNote

### 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.:** 1µL

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

**t<sub>0</sub>:** 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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