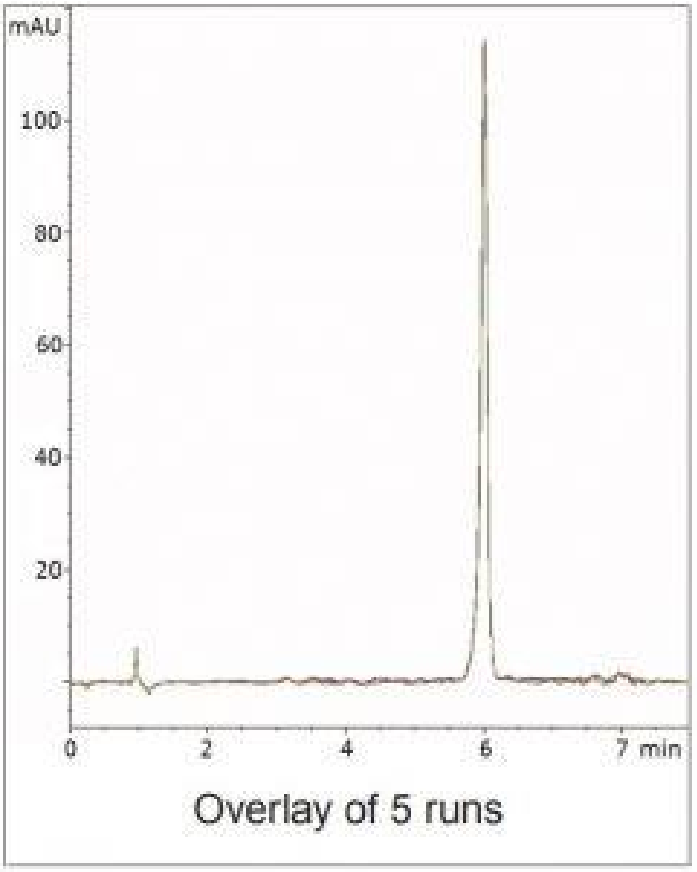
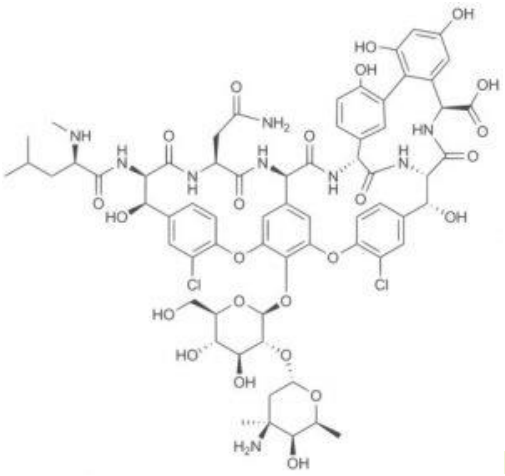
Vancomycin Analyzed with HPLC- AppNote

Retention of a Highly Polar Antibiotic

As a highly polar compound, Vancomycin is difficult to retain with Reversed Phase Methods. In this Method the compound retains very well as illustrated in the Figure. In addition, the repeatability of the analysis, which is demonstrated by the overlay of five consecutive runs, is excellent. The Mobile Phase used is LCMS compatible and the low equilibration time after the Gradient allows for a rapid and Robust Analysis.





Peak:

Vancomycin

Method Conditions

Column: Cogent Diamond Hydride™, 4µm, 100Å
Catalog No.: 70000-7.5P
Dimensions: 4.6 x 75mm
Mobile Phase:
A: DI Water / 0.1% Formic Acid
B: Acetonitrile / 0.1% Formic Acid
Gradient:

Time *(minutes)*	%B
0	70
6	10
7	70

Post Time: 2 minutes
Injection vol.: 5µL
Flow rate: 1.0mL / minute
Detection: UV @ 210nm
Sample Preparation: Stock Solution: 1mg / mL Vancomycin HCl in 50:50 Solvent A / Solvent B diluent. The solution was filtered through a 0.45µm Nylon Syringe Filter (MICROSOLV Tech Corp).
Working Solution: Stock solution was diluted 1:100 with 50:50 Solvent A / Solvent B mixture.
t_0: 0.9 minutes

Note: *Vancomycin is a glycosylated nonribosomal peptide antibiotic used to treat Colitis. Vancomycin is often used as a drug of last resort when other antibiotics are rendered ineffective due to developed resistance of bacteria. It is a natural product isolated from Amycolatopsis Orientalis.*

COGENT HPLC Columns™

Attachment

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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