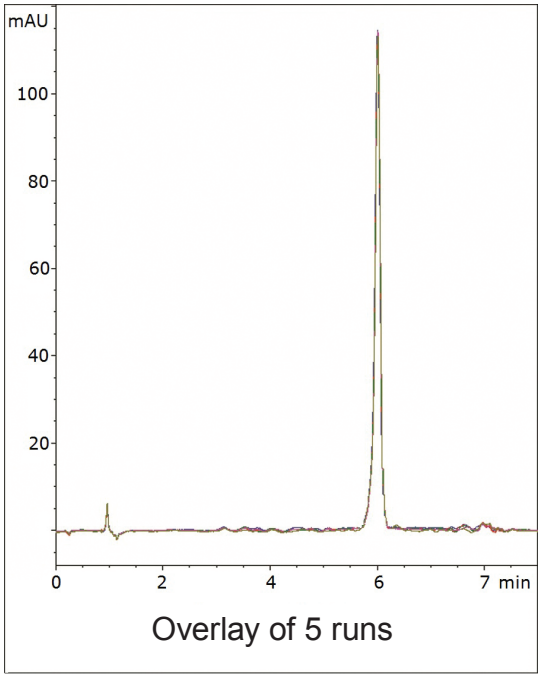
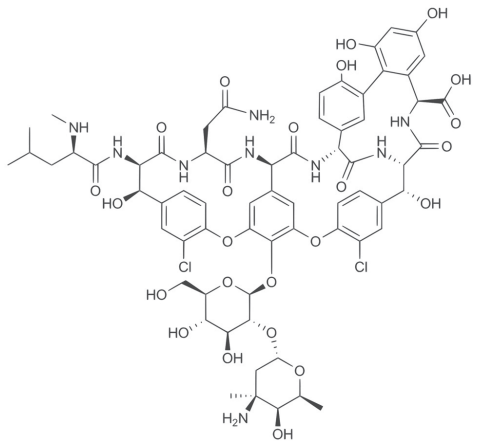
Vancomycin

Retention of a highly polar antibiotic



Overlay of 5 runs



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*.

Method Conditions

Column: Cogent Diamond Hydride™, 4µm, 100Å

Catalog No.: 70000-7.5P

Dimensions: 4.6 x 75 mm

Mobile Phase: A: DI H_2O / 0.1% formic acid
B: Acetonitrile / 0.1% formic acid

Gradient:

time (min.)	%B
0	70
6	10
7	70

Post Time: 2 min

Injection vol.: 5µL

Flow rate: 1.0 mL/min

Detection: UV 210 nm

Sample: Stock Solution: 1 mg/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.

Peak: Vancomycin

t_0: 0.9 min

Discussion

As a highly polar compound, vancomycin is difficult to retain with reversed phase methods. With 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 equilibration time after the gradient is low as well, allowing for rapid and robust analyses. Finally, the mobile phase used is LC-MS compatible.

MANUFACTURED BY:
MICROSOLV TECHNOLOGY CORPORATION

9158 Industrial Blvd NE
Leland, NC 28451

p: 1.732.380.8900
f: 1.910.769.9435

customers@mtc-usa.com
www.Cogent-HPLC.com