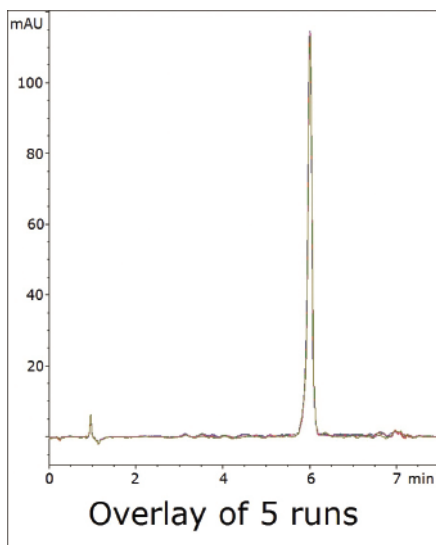
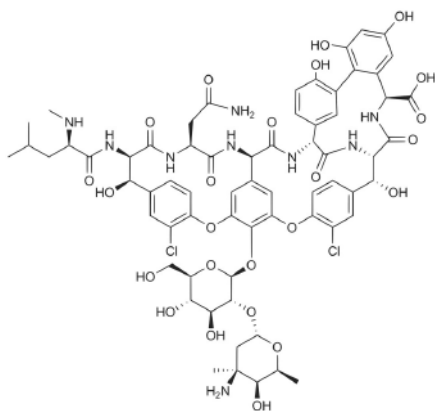


## Vancomycin

### Retention of a Highly Polar Antibiotic



**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, 100A

**Catalog No.:** 70000-7.5P

**Dimensions:** 4.6 x 75 mm

**Solvents:** A: DI H<sub>2</sub>O/ 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.:** 5 microL

**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 0.45 µm 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<sub>0</sub>:** 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.

For more information visit [www.MTC-USA.com](http://www.MTC-USA.com)

Cat. No.	Description
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70000-7.5P	Diamond Hydride™ HPLC Column, 100A, 4µm, 4.6 x75 mm
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