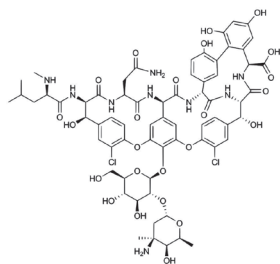
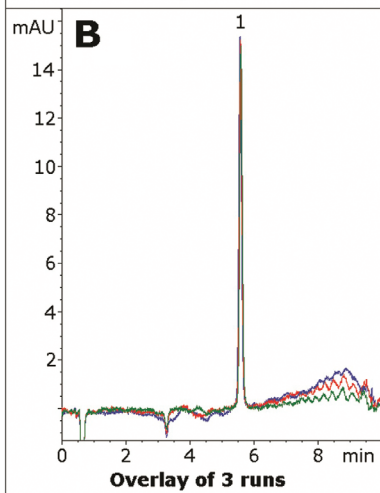
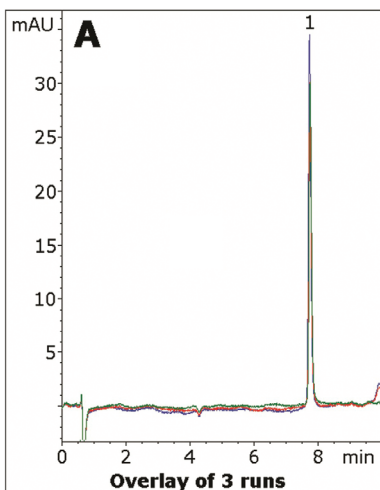


Vancomycin Method Transfer

Standard 4µm particle size to 2.0™



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: **Fig. A:** Cogent Diamond Hydride 2.0™, 120Å

Fig. B: Cogent Diamond Hydride™, 4µm, 100Å

Catalog No.: **Fig. A:** 70200-05P-2; **Fig. B:** 70000-05P-3

Dimensions: **Fig. A:** 2.1 x 50 mm; **Fig. B:** 3.0 x 50 mm

Mobile Phase: A: DI H₂O / 0.1% formic acid (v/v)

B: Acetonitrile / 0.1% formic acid (v/v)

Gradient:	time (min.)	%B
	0	70
	0.4	70
	7.4	10
	8.4	70

Post time: 5 min

Injection vol.: 0.2 microL

Flow rate: **Fig. A:** 0.29mL/min; **Fig. B:** 0.50mL/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: 1. Vancomycin

t₀: 0.4 min

Discussion

The highly polar antibiotic vancomycin can be readily analyzed with either the standard 4µm Cogent Diamond Hydride or the Cogent Diamond Hydride 2.0. Notably higher efficiency is obtained on the smaller particle size column. The method is easy to perform and is LC-MS compatible.

Three runs were performed on each column in order to demonstrate consistency.