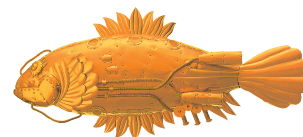




HILICpak VG-25 Series

High Performance Type Polymer-Based HILIC column



Shodex

Features

- A new member of VG series column with improved separation performance
- Like VG-50 series, VG-25 series provides good recovery of reducing sugars
- Smaller packing material achieved the higher separation ability

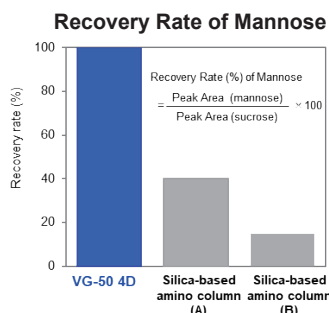
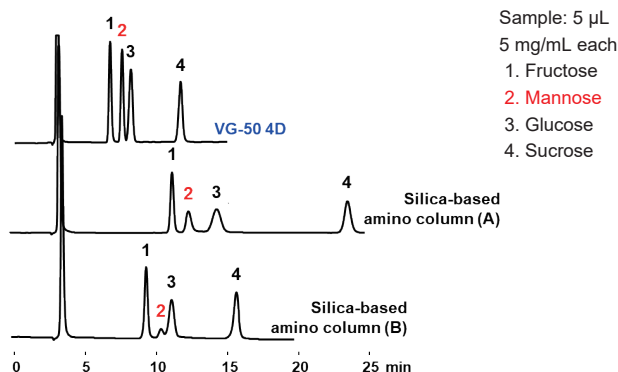
<https://www.shodex.com/>

Product Code	Product Name	Plate Number (TPN/column)	Column Size I.D. x L (mm)
F7631000	HILICpak VG-25 4D	≥16,500	4.6 x 150
F6711800	HILICpak VG-25G 4A (guard column)		4.6 x 10
F7631100	HILICpak VG-25 2B	≥3,500	2.0 x 50
F6711900	HILICpak VG-25G 2A (guard column)		2.0 x 10

Functional Group: Amino
 Packing Material: Ppyvinyl Alcohol
 Particle Size (μm) : 2.5
 Shipping Solvent: CH₃CN/H₂O = 80/20

Recovery of Reducing Sugars

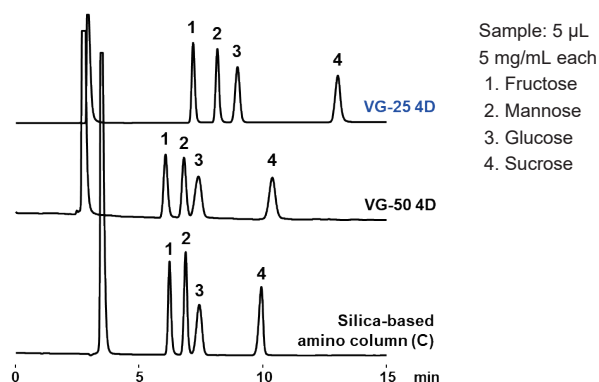
In general recovery rate of reducing sugars such as mannose, arabinose, and xylose using amino columns tend to be low. This is caused by the formation of Schiff base which makes reducing sugars to be adsorbed to the amino group on the packing material. However, HILICpak VG series are amino columns that provide high recovery rate of reducing sugars. This allows high sensitivity analysis of reducing sugars.



Column : Shodex HILICpak VG-50 4D
 Silica-based amino columns from other manufacturer (4.6 mm I.D. x 150 mm each)
 Eluent : CH₃CN/H₂O=80/20
 Flow rate : (VG-50 4D) 0.6 mL/min
 (Silica-based amino columns) 1.0 mL/min
 Detector : RI
 Column temp.: 40 °C

Comparisons of Amino Columns

The new product, VG-25 4D, and existing product, VG-50 4D, and a silica-based amino column from other manufacturer were compared for sugar separation. VG-25 4D showed significantly higher theoretical plate number on all four sugars analyzed over VG-50 4D. VG-25 4D exhibited higher separation ability over other manufacturer's column packed with 3 μm particles and which claims high performance.



Theoretical Plate Number of Four Sugars

	VG-25 4D	VG-50 4D	Silica-based amino column (C)
Fructose	16,900	6,700	13,800
Mannose	18,500	7,900	13,900
Glucose	11,600	3,700	5,200
Sucrose	19,500	7,800	16,600

Column : Shodex HILICpak VG-25 4D, VG-50 4D
 Silica-based amino column from other manufacturer (4.6 mm I.D. x 150 mm each)
 Eluent : CH₃CN/H₂O=80/20
 Flow rate : 0.6 mL/min
 Detector : RI
 Column temp.: 40 °C