COSMOSIL HIC

- Separate based on differences in hydrophobicity
- Little loss in enzyme activity and the tertiary structure of proteins

Specifications

Packing Material	HIC
Silica Gel	High Purity Porous Spherical Silica
Average Particle Size	5 µm
Average Pore Size	approx. 300 Å
Specific Surface Area	approx. 150 m^2/g
Main Interaction	Hydrophobic Interaction

Applications

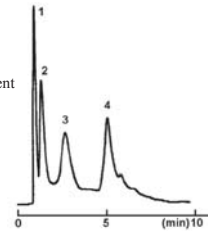
A buffer with high salt concentration, usually 1–2 mol/l of $(NH_4)_2SO_4$, is used as an initial mobile phase for adsorption of samples to a weakly hydrophobic stationary phase. The elution is done with a decreasing salt gradient. The application in lower left shows myoglobin elutes first than BSA under the buffer with high salt concentration, suggesting that myoglobin is less hydrophobic than BSA.

- Separation of Protein Standards

COSMOSIL Application Data

Column: HIC
Column size: 4.6mmI.D.-50mm
Mobile phase: A:20mmol/l Phosphate Buffer
+100mmol/l Na_2SO_4
+1.5mol/l $(NH_4)_2SO_4$(pH6.7)
B:20mmol/l Phosphate Buffer
+100mmol/l Na_2SO_4(pH6.7)
B conc. 0→100% 10min Linear gradient
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220nm

Sample:
1; Myoglobin (1.0 µg)
2; β-Lactoglobulin (2.0 µg)
3; Hemoglobin, Bovine (5.0 µg)
4; Albumin, Bovine [BSA] (2.0 µg)



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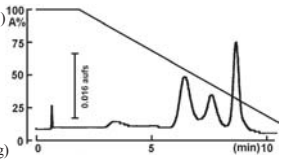
AP-0406

- Separation of β-Glucosidase

COSMOSIL Application Data

Column: HIC
Column size: 4.6mmI.D.-50mm
Mobile phase: A:20mmol/l Phosphate Buffer
+100mmol/l Na_2SO_4
+2mol/l $(NH_4)_2SO_4$(pH6.7)
B:20mmol/l Phosphate Buffer
+100mmol/l Na_2SO_4(pH6.7)
B conc. 0→100% 10min
Linear gradient
Flow rate: 1.0 ml/min
Temperature: 30°C
Detection: UV220nm

Sample: β-Glucosidase (15 µg)



NACALAI TESQUE, INC

AP-0407

Ordering Information

- Analytical / Preparative Column (Particle Size: 5 µm)

COSMOSIL 5HIC Packed Column

Column Size I.D. x Length (mm)	Product Number
4.6 x 50	04263-21