CREATIVE BIOMART®
Chromatography

HiPrep Q HP Column

Product Information

Cat#No#	Hi-207P

Product Overview

HiPrep Q HP is a 20 mL strong anion exchange chromatography column for high resolution small-scale protein purification.

Characteristic

Packed with Q Sepharose High Performance strong quarternary ammonium anion exchange resin.
Small (34 µm) bead size delivers high-performance, high-resolution purifications.
20 mL HiPrep column format compatible with single-pump configurations and chromatography systems.

Maximum operating pressure

3 bar [0.3 MPa] (44 psi)

Sample preparation

1. Adjust the sample to the composition of the start buffer, using one of these methods: Dilute the sample with start buffer. Exchange buffer using a HiPrep 26/10 Desalting, HiTrap Desalting or PD-10 Desalting column.
2. Filter the sample through a 0.45 µm filter or centrifuge at 10 000 × g for 10 min immediately before loading it to the column. This prevents clogging and increases the life time of the column when loading large sample volumes.

Metal ion capacity

0.14 to 0.20 mmol Cl - /mL resin

Matrix

Cross-linked agarose, spherical

Ionic Exchanger Type

Strong anion

Average particle size

~ 34 µm

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Dynamic binding capacity
~ 70 mg BSA/mL resin
Recommended flow rate
< 150 cm/h
Recommended column height
100 mm
Chemical stability
Stable to commonly used aqueous buffers, 1 M NaOH6 , 8 M urea, 6 M guanidine hydrochloride, 70% ethanol.
pH working range
2 to 12
CIP stability
2 to 14
Storage
4 to 30°C, 0.2 M Sodium Acetate in 20% Ethanol
Cleaning-in-place
80 mL of a 2 M NaCl solution (removes ionically bound proteins from the column) followed by 50 mL distilled water. 80 mL of a 1.0 M NaOH solution (removes precipitated proteins, hydrophobically bound proteins, and lipoproteins from the column) followed by 80 mL distilled water. 80 mL of 70% ethanol or 30% isopropanol (removes proteins, lipoproteins, and lipids that are strongly hydrophobically bound to the column) followed by 60 mL distilled water.
Purification procedures
1. Remove the stoppers and connect the column to the system. Avoid introducing air into the column. 2. Wash with 1 column volume (CV) distilled water. This step removes the ethanol and avoids the precipitation of buffer salts upon exposure to ethanol. The step can be omitted if precipitation is not likely to

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be a problem.
3. Equilibrate the column with at least 5 CV start buffer or until the UV baseline, eluent pH and conductivity are stable.
4. Adjust the sample to the chosen starting pH and conductivity and load on the column.
5. Wash with 5 to 10 CV start buffer or until the UV trace of the effluent returns to near baseline.
6. Elute, either by linear gradient elution or a step elution, see below. If required, the collected eluted fractions can be buffer exchanged or desalted.
7. Wash with 5 CV of 1 M NaCl (100% elution buffer) to elute any remaining ionically bound material.
8. If required, perform a CIP to clean the column.
9. Re-equilibrate with 5 to 10 CV start buffer or until the UV baseline, eluent pH, and conductivity reach the required values.

Pack size
20 mL
Maximum flow velocity
150 cm/h (5 mL/min)
Dimensions
16 × 100 mm
Column volume
20 mL
Column i.d.
16 mm
Column hardware pressure limit
0.5 MPa (5 bar, 72.5 psi)
Functional group
-N+ (CH3)3

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