HiTrap Capto DEAE

Product Information

Cat#No#	Hi-227P

Product Overview

HiTrap Capto DEAE is a weak anion exchanger prepacked with BioProcess Capto resins for screening and small-scale protein purifications using ion exchange chromatography (IEX).

Description

Capto DEAE has a weak diethylaminoethyl anion exchanger coupled to a chemically modified, high-flow agarose matrix. The modified agarose matrix provides greater particle rigidity without compromising pore size, which allows more flexibility in process-scale applications. High dynamic binding capacity is achieved with a dextran surface extender that coats the agarose matrix.

Characteristic

High-throughput resin for capture and intermediate purification, excellent choice for process-scale purification. The combined properties of high binding capacity, high flow rate, and low back pressure reduces process cycle times and improves productivity at process scale.
Rigid agarose matrix enables high bed heights and purification of viscous samples at high flow rates.

Maximum operating pressure

5 bar [0.5 MPa] (70 psi)

Metal ion capacity

0.29 to 0.35 mmol Cl- /mL resin

Matrix

Highly cross-linked agarose, spherical

Ionic Exchanger Type

Weak anion, DEAE

Average particle size

~ 90 µm

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Dynamic binding capacity
> 90 mg ovalbumin/mL resin
Recommended flow rate
1 mL/min
Recommended column height
25 mm
Chemical stability
Stable to commonly used aqueous buffers, 1.0 M NaOH, 8 M Urea, 6 M guanidine hydrochloride, 1 M acetic acid, 30% isopropanol, and 70% ethanol.
pH working range
2 to 12
CIP stability
2 to 14
Storage
4 to 30°C, 20% Ethanol
Elution buffer
20 mM Tris-HCl, 1 M NaCl, pH 8.0
Elution
1. Equilibrate the column with at least 5 column volumes of start buffer for Capto Q and Capto S and at least 10 column volumes of start buffer for Capto DEAE or until the UV baseline, eluent pH, and conductivity are stable. 2. Adjust the sample to the chosen starting pH and conductivity and apply to the column. 3. Wash with 5 to 10 column volumes of start buffer or until no material appears in the effluent. 4. Elute with 5 column volumes of start buffer including NaCl at chosen concentration. 5. Repeat step 4 at higher NaCl concentrations until the target protein has been eluted. 6. Wash with 5 column volumes of a high salt solution (1 M NaCl in start buffer) to elute any remaining

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ionically bound material.
7. Re-equilibrate with 5 to 10 column volumes of start buffer or until the UV baseline, eluent pH, and conductivity reach the required values

Cleaning-in-place

1. Wash with at least 2 column volumes of 2.0 M NaCl.
2. Wash with at least 4 column volumes of 1.0 M NaOH.
3. Wash with at least 2 column volumes of 2.0 M NaCl.
4. Rinse with at least 2 column volumes of distilled water.
5. Wash with 5 column volumes of start buffer for Capto Q and Capto S and at least 10 column volumes of start buffer for Capto DEAE or until eluent pH and conductivity have reached the required values.

Pack size

5 × 1 mL

Maximum flow velocity

700 cm/h

Dimensions

7 × 25 mm

Column volume

1 mL

Column i.d.

7 mm

Column hardware pressure limit

5 bar (0.5 MPa, 72 psi)

Functional group

-N+H(CH2CH3)2

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