

HiScreen Capto Q Column

Product Information

Cat#No# Hi-214P

Product Overview

HiScreen Capto Q is a column packed with a strong anion exchange modern resin, combining speed and capacity. Suitable for process development.

Characteristic

Prepacked with Capto Q strong anion exchange chromatography resin.

Convenient method optimization and parameter screening because of the 10cm bed height.

These columns are easily connected in series to increase bed height to 20 cm.

Fast results and minimal consumption of sample and buffer consumption through the small bed volume.

BioProcess columns packed with the same chromatography resin and using the same linear fluid velocity can produce scalable, reproducible results.

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

0.16 to 0.22 mmol Cl⁻ /mL resin

Matrix

Highly cross-linked agarose, spherical

Ionic Exchanger Type

Strong anion, Q

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Average particle size

~ 90µm

Dynamic binding capacity

> 100 mg BSA/mL resin

Recommended flow rate

< 700 cm/h

Recommended column height

100 mm

Chemical stability

Stable to commonly used aqueous buffers, 1.0 M NaOH 8 M Urea, 6 M guanidine hydrochloride, 30% isopropanol, and 70% ethanol.

pH working range

2 to 12

CIP stability

2 to 14

Temperature stability

4°C to 30°C

Storage

4 to 30°C, 20% Ethanol

Elution buffer

20 mM Tris-HCl, 1 M NaCl, pH 8.0.

Cleaning-in-place

1. Wash with at least 2 column volumes (CV) of 2.0 M NaCl.
2. Wash with at least 4 CV 1.0 M NaOH.
3. Wash with at least 2 CV 2.0 M NaCl.

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4. Wash with at least 2 CV ultra pure water.
5. Wash with Capto DEAE At least 10 CV start buffer or until eluent pH and conductivity have reached the required values.

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 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

1 × 4.7 mL

Maximum flow velocity

700 cm/h

Dimensions

7.7 × 100 mm

Column volume

4.7 mL

Column i.d.

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7.7 mm

Column hardware pressure limit

0.8 MPa (8 bar, 116 psi)

Functional group

-N⁺ (CH₃)₃
