

HiTrap Capto MMC ImpRes

Product Information

Cat#No# Hi-290P

Product Overview

HiTrap Capto MMC ImpRes is a ready-to-use column pre-packed with BioProcess Capto MMC ImpRes weak cation exchange multimodal resin for screening and small-scale protein purifications using ion exchange chromatography (IEX).

Description

The multimodal functionality of Capto MMC ImpRes gives a different selectivity compared with traditional ion exchange columns and it binds proteins at high or low ionic strength.

Characteristic

High yields achieved through the high-resolution beads and selectivity of the ligand.

Enables use of a platform approach to MAb process development.

Displays a broad pH/salt operational window.

Columns for screening of selectivity, binding, and elution conditions, as well as for small scale purifications.

Maximum operating pressure

5 bar (0.5 Mpa, 70 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.

Matrix

Highly cross-linked agarose

Ionic Exchanger Type

Multimodal weak cation exchanger

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Average particle size

36 to 44 μm

Ligand density

25 to 39 μmol ligand/ml medium

Recommended flow rate

25 to 50 cm/h

Recommended column height

25 mm

Chemical stability

All commonly used aqueous buffers, 1 M acetic acid, 1 M sodium hydroxide.

pH working range

3 to 12

CIP stability

2 to 14

Storage

4°C to 30°C in 20% ethanol, 0.2 M sodium acetate.

Cleaning-in-place

1. Wash with at least 2 column volumes (CV) of 2 M NaCl.
2. Wash with at least 3 CV 1 M NaOH with at least 15 min contact time.
3. Wash with at least 2 CV 2 M NaCl.
4. Wash with at least 2 CV distilled water.
5. Wash with 5 CV start buffer or until eluent pH and conductivity have reached the required values.

Scaling up

1. Select bed volume according to required sample load. Keep sample concentration constant.
2. Select column diameter to obtain the desired bed height. The excellent rigidity of the high flow base matrix

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allows for flexibility in choice of bed heights.

3. The larger equipment used when scaling up may cause some deviations from the method optimized at small scale. In such cases, check the buffer delivery and monitoring systems for time delays or volume changes.

Pack size

5 × 1 mL

Maximum flow velocity

300 cm/h

Dimensions

7 × 25 mm

Column volume

1 mL

Column i.d.

7 mm

Column hardware pressure limit

5 bar (0.5 MPa)
