

## HiTrap Capto MMC

### Product Information

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**Cat#No#**                      Hi-289P

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### Product Overview

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HiTrap Capto MMC is prepacked with Capto MMC, a multimodal BioProcess ion exchange resin. The multimodal functionality gives a different selectivity compared with traditional ion exchangers and it binds proteins at high or low ionic strength.

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### Description

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The multimodal functionality gives a different selectivity compared with traditional ion exchangers including binding of proteins regardless of ionic strength of the loading material. This means that the resin may be used for direct load of clarified feedstocks, without prior dilution to reduce the conductivity of the starting material. To reduce tedious sample preparation, the top filter in HiTrap Capto MMC has been optimized for loading sonicated unclarified cell lysate directly on the column.

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### Characteristic

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High dynamic binding capacity at high conductivity.

Selectivity allows binding in the presence of salt.

High volume throughput.

HiTrap Capto MMC can be used to bind proteins at the conductivity of the feed material and to solve specific purification challenges.

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### Maximum operating pressure

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5 bar [0.5 MPa] (70 psi)

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### Metal ion capacity

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0.07 to 0.09 mmol H<sup>+</sup> /mL resin

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### Matrix

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Highly cross-linked agarose, spherical

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### Ionic Exchanger Type

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Multimodal weak cation exchanger

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## HiTrap Capto MMC

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**Average particle size**

~ 75 µm

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**Dynamic binding capacity**

≥ 45 mg BSA/mL resin at 30 mS/cm

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**Recommended flow rate**

1 to 4 mL/min

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**Recommended column height**

25 mm

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**Chemical stability**

Stable to commonly used aqueous buffers, 1M acetic acid, 1.0 M NaOH, 8 M Urea, 6 M guanidine hydrochloride, 70% ethanol, 30% isopropanol.

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**pH working range**

3 to 12

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**CIP stability**

3 to 14

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**Storage**

4 to 30°C, 20% Ethanol

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**Elution buffer**

25 mM phosphate buffer, 1 M NaCl, pH 7.5

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**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.
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## HiTrap Capto MMC

### Scaling up

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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 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.
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### Pack size

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5 × 1 mL

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### Dimensions

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7 × 25 mm

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### Column volume

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1 mL

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### Column i.d.

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7 mm

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### Column hardware pressure limit

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0.5 MPa (5 bar, 72 psi)

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