

HiTrap Q FF column

Product Information

Cat#No# Hi-236P

Product Overview

HiTrap Q FF is a strong anion exchange chromatography column for small-scale protein purification.

Characteristic

Packed with Q Sepharose Fast Flow strong anion exchange resin.

Convenient and affordable for fast ion exchange separations, either alone or connected in series.

High flow rates and good scale-up potential.

Resin made up of 6% crosslinked agarose and 90 µm particle size.

pH stable: 2–12 operational, 2–14 for cleaning.

Convenient HiTrap format for easy connection to a syringe, peristaltic pump, or chromatography system.

Applications

For method scouting, group separations, sample concentration and sample clean-up of charged biomolecules.

Maximum operating pressure

5 bar [0.5 MPa] (70 psi)

Sample preparation

The sample should be adjusted to the composition of the start buffer by buffer exchange using HiTrap Desalting, HiPrep 26/10 Desalting or PD-10 columns, see Table 5. The sample should be filtered through a 0.45 µm filter or centrifuged immediately before it is applied to the column.

Metal ion capacity

0.18–0.24 mmol Cl⁻ /mL resin

Matrix

Cross-linked agarose, 6%, spherical

Ionic Exchanger Type

HiTrap Q FF column

Strong anion

Average particle size

~ 90 µm

Dynamic binding capacity

~ 120 mg HSA/ mL resin

Recommended flow rate

< 4 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, 70% ethanol.

pH working range

2 to 12

CIP stability

2 to 14

Storage

4 to 30°C, 20% Ethanol

Purification procedures

1. Fill the syringe or pump tubing with start buffer (low ionic strength). Remove the stopper and connect the column to the syringe (with the provided connector), or pump tubing, "drop to drop" to avoid introducing air into the column.
2. Remove the snap-off end at the column outlet.
3. Wash out the preservatives with 5 column volumes of start buffer, at 1 mL/min for HiTrap 1 mL and 5 mL/min for HiTrap 5 mL.

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4. Wash with 5 column volumes of elution buffer (start buffer with 1 M NaCl).
5. Finally equilibrate with 5 to 10 column volumes of start buffer.
6. Apply the sample at 1 mL/min for HiTrap 1 mL and 5 mL/min for HiTrap 5 mL using a syringe fitted to the luer connector or by pumping it onto the column.
7. Wash with at least 5 column volumes of start buffer or until no material appears in the eluate.
8. Elute with 5 to 10 column volumes of elution buffer, see "Choice of gradient type".
9. The purified eluted fractions can be desalted using a HiTrap Desalting, HiPrep 26/10 Desalting or a PD-10 column if necessary.
10. After completed elution, regenerate the column by washing with 5 column volumes of regeneration buffer (start buffer with 1 M NaCl) followed by 5 to 10 columns volumes of start buffer. The column is now ready for a new sample.

Pack size

5 × 1 mL

Dimensions

7 × 25 mm

Column volume

1 mL

Column i.d.

7 mm

Column hardware pressure limit

5 bar (0.5 MPa)

Functional group

-N⁺(CH₃)₃
