

HiTrap Heparin HP columns

Product Information

Cat#No# Hi-075P

Product Overview

HiTrap Heparin HP columns are designed for high-resolution purification of DNA-binding proteins, coagulation factors, and other plasma proteins.

Description

HiTrap Heparin HP is one of a range of prepacked, ready to use columns for affinity chromatography. Fast, simple and easy separations are provided by the prepacked column with a high performance affinity medium. HiTrap Heparin HP is particularly suitable for the isolation and purification of antithrombin III and other coagulation factors, lipoproteins, lipases, protein synthesis factors, hormones, steroid receptors, nucleic acid binding enzymes and interferon.

Characteristic

Suitable for purification of antithrombin III, coagulation factors, and other plasma proteins.

Useful for screening and optimization before scaling up to bulk resins such as Heparin 6 Fast Flow.

High-resolution purification and elution in narrow peaks, minimizing the need for further concentration steps.

Prepacked with Heparin Sepharose High Performance resin.

HiTrap format compatible with syringes, pumps, and chromatography systems such as ÄKTA systems.

Maximum operating pressure

5 bar [0.5 MPa] (70 psi)

Sample preparation

The sample should be adjusted to the composition of the binding buffer. This can be done by either diluting the sample with binding buffer or by buffer exchange using HiTrap Desalting, HiPrep 26/10 Desalting or PD-10 column. The sample should be filtered through a 0.45 µm filter or centrifuged immediately before it is applied to the column.

Matrix

Highly cross-linked 6% spherical agarose

HiTrap Heparin HP columns

Average particle size

34 μ m

Ligand

Heparin

Ligand density

approx. 10 mg/ml

Dynamic binding capacity

approx. 3 mg antithrombin III/ml medium

Recommended flow rate

< 4 ml/min

Recommended column height

25 mm

Chemical stability

All commonly used buffers.

pH working range

5 to 10

CIP stability

5 to 10

Temperature stability

4°C to room temp.

Storage

4 to 30°C, 20% Ethanol

Binding buffer

10 mM sodium phosphate, pH ~7.

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Elution buffer

10 mM sodium phosphate, 1-2 M NaCl, pH ~7.

Purification procedures

1. Fill the syringe or pump tubing with binding buffer. 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 preservative and equilibrate the column with 10 column volumes of binding buffer.
4. Apply the sample, using a syringe fitted to the luer connector or by pumping it onto the column.
5. Wash with 5 to 10 column volumes of binding buffer or until no material appears in the effluent.
6. Elute with 5 to 10 column volumes of elution buffer using a continuous or step gradient.
7. The purified fractions can be desalting using HiTrap Desalting, HiPrep 26/10 Desalting or PD-10 column if necessary.

Pack size

5 × 1 mL

Maximum flow velocity

4 ml/min (1 ml), 20 ml/min (5 ml)

Dimensions

7 × 25 mm

Column volume

1 mL

Column i.d.

7 mm

Column hardware pressure limit

5 bar (0.5 MPa, 70 psi)