

HiPrep Heparin FF columns

Product Information

Cat#No# Hi-062P

Product Overview

HiPrep Heparin FF columns are well suited for capture or intermediate purification of proteins with affinity for heparin.

Description

HiPrep Heparin FF 16/10 is a prepacked ready to use column. The column provides fast, preparative separations of proteins and other biomolecules based on their affinity for heparin. Heparin is a naturally occurring glycosaminoglycan which is an effective affinity binding and ion exchange ligand for a wide range of biomolecules, including coagulation factors and other plasma proteins, lipoproteins, protein synthesis factors, enzymes that act on nucleic acids, and steroid receptors. Heparin is coupled to Sepharose 6 Fast Flow with a chemically optimized linkage.

Characteristic

Suitable for plasma protein purification of various proteins, including antithrombin III antibodies and coagulation factors.

Prepacked with Heparin Sepharose Fast Flow resin.

Heparin ligand provides enhanced coupling chemistry and chemically stable ligand attachment .

HiPrep column format: optimized for convenient purification scale-up.

Maximum operating pressure

1.5 bar [0.15 MPa] (22 psi)

Sample preparation

Dissolve the sample in binding buffer, filter through 0.45 µm filter or centrifuge at 10 000 × g for 10 minutes.

Ligand Coupling Method

Reductive amination

Matrix

cross-linked agarose, 6%, spherical

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Average particle size

~ 90 µm

Ligand

Heparin (procine origin)

Ligand density

~ 2 mg heparin/mL resin

Recommended flow rate

2–10 mL/min (60–300 cm/h)

Recommended column height

100 mm

pH working range

4 to 12

CIP stability

4 to 13

Storage

4 to 30°C, 0.05 M Sodium Acetate containing 20% Ethanol

Binding buffer

20 mM Tris-HCl, pH 8 (if the immobilized heparin interacts with the protein as a cation exchanger) or 20 mM Tris-HCl, 0.15 M NaCl, pH 8 (if the immobilized heparin interacts with the protein as an affinity ligand).

Elution buffer

20 mM Tris-HCl, 1 M NaCl, pH 8.

Regeneration

Re-equilibrate the column with at least 100 mL binding buffer at a flow rate of 5 mL/min at room temperature or until the UV base-line and pH/conductivity values are stable.

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Cleaning-in-place

Wash the column with 40 mL of 2 M NaCl at a flow rate of 5 mL/min at room temperature to remove ionically bound proteins.

Pack size

20 mL

Maximum flow velocity

10 mL/min (300 cm/h)

Maximum operating backpressure

0.15 MPa (1.5 bar, 22 psi)

Dimensions

16 × 100 mm

Column volume

20 ml

Column i.d.

16 mm

Column hardware pressure limit

0.5 MPa (5 bar, 73 psi)