CREATIVE BIOMART®
Chromatography

HiTrap Protein A HP columns

Product Information

Cat#No#	Hi-021P

Product Overview

HiTrap Protein A HP are prepacked columns for routine preparative purification of monoclonal and polyclonal antibodies such as human IgG.

Characteristic

First choice Protein A resin for routine purification of antibodies: ensures minimized sample dilution and high resolution.
Small bead size (34 µm) ensures narrow elution peaks containing concentrated material.

Applications

Can be operated with a syringe, peristaltic pump or liquid chromatography system such as ÄKTA design.

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, PD-10 Desalting or HiPrep 26/10 Desalting columns. 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 spherical agarose

Average particle size

34 µm

Ligand

Protein A, Mr ~42 000

Dynamic binding capacity

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~20 mg human IgG/ml medium
Recommended flow rate
< 4 ml/min
Recommended column height
25 mm
Chemical stability
All commonly used buffers
pH working range
3 to 9
CIP stability
2 to 9
Storage
4 to 8°C, 20% Ethanol
Binding buffer
20 mM sodium phosphate, pH.
Elution buffer
0.1 M citric acid, pH 3–6
Purification procedures

1. Prepare collection tubes by adding 60 to 200 µl of 1 M Tris-HCl, pH 9.0 per ml of fraction to be collected.
2. Fill the syringe or pump tubing with binding buffer. Remove the stopper and connect the column to the syringe (with the provided luer connector), or pump tubing, ‘‘drop to drop" to avoid introducing air into the column.
3. Remove the snap-off end at the column outlet.
4. Wash the column with 10 column volumes of binding buffer at 1 ml/min or 5 ml/min for 1 ml and 5 ml column respectively.

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5. Apply the sample, using a syringe fitted to the luer connector or by pumping it onto the column.
6. Wash with 5 to 10 column volumes of binding buffer or until no material appears in the effluent.
7. Elute with 2 to 5 column volumes of elution buffer. Other volumes may be required if the interaction is difficult to break.
8. The purified fractions can be buffer exchanged using HiTrap Desalting, HiPrep 26/10 Desalting or PD-10 Desalting columns if necessary

Pack size
5 × 1 mL
Maximum flow velocity
4 and 20 ml/min for 1 ml and 5 ml column respectively
Maximum operating backpressure
0.3 MPa, 3 bar
Dimensions
7 × 25 mm
Column volume
1 mL
Column i.d.
7 mm
Column hardware pressure limit
5 bar (0.5 MPa)

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