ChangZhou Smart-Lifesciences Biotechnology Co., Ltd.
Hotline Service: 0086-519-83820182 **E-mail:**sales@smart-lifesciences.com
West Taihu science and Technology Industrial Park,Wujin District,Changzhou City,Jiangsu Province,China

HiPur Heparin 6FF

Index

1. Product Description

Heparin Beads 6FF is an affinity medium for purification of heparin-dependent biomolecules, including antithrombin III, coagulation factors and other plasma proteins, DNA binding proteins, lipoproteins, protein synthesis factors, enzymes that act on nucleic acids, and steroid receptors. The base matrix of **Heparin Beads 6FF** is highly cross-linked 6% agarose. The excellent flow characteristics and high chemical stability of **Heparin Beads 6FF** make the medium highly suitable for process-scale purifications.

HiPur Heparin 6FF is a prepacked ready to use column. It is packed with 20 ml **Heparin Beads 6FF**.The arrow on the column label indicates the recommended flow direction. **HiPur Heparin 6FF** can be adapted to all kinds of chromatography system, such as ÄKTA. It is easy to operate.

Table 1. Characteristics of Heparin Beads 6FF

Item	Description
Size	20 ml
Column size	1.6×10 cm
Matrix	Highly cross-linked 6% agarose
Ligand	Heparin sodium
Ligand density	>4 mg/ml medium
Particle size (μm)	45-165
Maxi pressure	0.3 MPa, 3 bar
pH stability	3-12
Storage buffer	1×PBS containing 20% ethanol
Storage	2-8℃

2. Purification Procedure

2.1 Buffer Preparation

Water and chemicals used for buffer preparation should be high purity. It is recommended to filter the buffers by passing them through a 0.22 μm or 0.45 μm filter before use.

Binding Buffer /Wash Buffer: 50 mM Tris-HCl, 10 mM sodium citrate, pH 7.4

Elution Buffer: 50 mM Tris-HCl, 10 mM sodium citrate, 1 M NaCl, pH 7.4

2.2 Sample Preparation

It is recommended to filter the sample solution by passing them through a 0.22 μm or 0.45 μm filter before use.

2.3 Sample Purification

HiPur Heparin 6FF is a prepacked, ready to use column for purification. The prepacked column provides fast, simple and easy separations in a convenient format.

1) Fill the syringe or pump tubing with distilled water. 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. Remove the stopper at the column outlet and connect the column to the chromatographic system.

2) Wash the column with 3-5 column volumes of distilled water.

3) Equilibrate the column with at least 5 column volumes Lysis Buffer.

4) Apply the pre-treated sample, using a Loop fitted to the connector or by pumping it onto the column.

5) Wash with Wash Buffer until the absorbance reaches the baseline or no material appears in the effluent (Generally at least 10-15 column volumes).
6) Elution with 5 to 10 column volumes of Elution Buffer or until no material appears in the effluent.

2.4 Analysis

Identify the fractions containing the target protein. Use UV absorbance, SDS-PAGE, or Western Blot.

3. Cleaning-in-Place

In general, **HiPur Heparin 6FF** is well suited for reuse several times. When reduced performance or an increase in back-pressure are noted, you need to clean the medium with the solutions as follows

Remove the precipitation or denatured protein

Wash the column with 2 column volumes 0.1M NaOH or 6M guanidine hydrochloride solution. Finally wash the column with 5 column volumes 1×PBS (pH 7.4).

Remove the non-specific adsorption protein

Wash the column with 3 column volumes 70% ethanol or 1% Triton X-100.Finally wash the column with 5 column volumes 1×PBS (pH 7.4).

4. Related Products

Product	Cat. No.	Size
HiSelect Heparin 6FF	SA024C47	4.7 ml
HiPur Heparin 6FF	SA024C20	20 ml