ReadyToProcess IMAC Sepharose 6 Fast Flow columns

Product Information

Cat#No#	Re-089P

Product Overview

Chromatography columns prepacked with IMAC Sepharose 6 Fast Flow, an uncharged IMAC resin for purifying proteins and peptides with affinity for metal ions.

Description

Immobilized metal ion affinity chromatography (IMAC) is a widely used separation method for purifying proteins and peptides that have an affinity for metal ions, such as histidine-tagged proteins but also some untagged recombinant or native proteins.
IMAC Sepharose 6 Fast Flow is supplied free of metal ions, allowing the user to charge it with the most appropriate metal ion for purification of a target protein.

Characteristic

Prepacked and ready-to-use: validated high-performance columns supplied prepacked and ready for use in bioprocessing.
Supplied uncharged: for customized metal ion charging and optimized selectivity.
For purification of histidine-tagged (his-tagged) proteins: select when nickel has been shown to not be the best choice of metal ion. High chemical stability: enables proven cleaning-in-place and sanitization protocols. Hydrophilic base matrix: ensures low levels of nonspecific binding and low levels of host cell-derived impurities in the elution pool. Resin fulfills industrial demands: for security of supply, robust performance, and regulatory support.

Maximum operating pressure

1.2 bar (0.12 MPa, 17 psi)

Metal ion capacity

Approx. 15 µmol Ni2+/mL medium

Matrix

Highly cross-linked 6% spherical agarose

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CREATIVE BIOMART®
Chromatography

ReadyToProcess IMAC Sepharose 6 Fast Flow columns

Average particle size
90 µm
Dynamic binding capacity
(Histidine)6 -tagged: Approx. 40 mg/mL medium (Ni2+-charged) Untagged: Approx. 25 mg/mL medium (Cu2+-charged), approx. 15 mg/mL medium (Zn2+ or Ni2+-charged)
Recommended column height
200 mm (7.87 in)
Chemical stability
0.01 M HCl, 0.1 M NaOH. Tested for 1 week at 40°C. 1 M NaOH, 70% acetic acid. Tested for 12 h. 2% SDS. Tested for 1 h. 30% 2-propanol. Tested for 30 min.
pH working range
3 to 12
CIP stability
2 to 14
Storage
4˚C to 30˚C, 20% ethanol
Elution
Elution is performed by reducing the pH or by competitive displacement, using for example imidazole. The most frequently used elution procedure for histidine-tagged proteins is based on a linear or stepwise increase of the imidazole concentration. Elution by reducing pH can be performed using a linear or stepwise gradient. Most untagged proteins can be eluted between pH 6 and 4. Prepacked HiTrap IMAC FF columns are an excellent choice for screening to establish the optimal chromatographic conditions
Pack size
1 L

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Maximum flow velocity
600 cm/h (20 mL/min) using XK 16/20 columns with 5 cm bed height.
Dimensions
80 × 200 mm
Column volume
1 L
Column i.d.
80 mm
Column hardware pressure limit
5 bar (0.5 MPa, 72 psi)

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