NeoTrap Ni-NTA FPLC Columns

Cat# NB-19-0076-1mL Size: 1 ml

Cat# NB-19-0076-5mL Size: 5 ml

Introduction

NeoTrap Ni-NTA FPLC Columns are designed for simple, one-step and rapid purification histidine-tagged recombinant proteins by immobilized metal ion affinity chromatography (IMAC).

Compatible with all common liquid chromatography instruments (including ÄKTA™ FPLC's), peristaltic pumps and syringes.

Specifications

PRODUCT	NeoTrap Ni-NTA FPLC Columns	
Cat. No.	NB-19-0076-1mL	NB-19-0076-5mL
Column volume	1 ml	5 ml
Resin	6% Highly crosslinked agarose beads	
Bead size	50-150 µm	
Ligand	Nitrilotriacetic acid (NTA)	
Loading capacity	≥15 µmol Me^{2+}/ml resin	
Static binding capacity	≥60 mg/ml resin*	
Storage	2-8°C in ethanol 20%	

* Static Binding capacity will modify for each target protein

Recommended Protocol for Purification:

Buffers needed:

Binding Buffer:	Sodium phosphate 50 mM, NaCl 300 mM, Imidazole 10 mM, pH 8.0
Washing Buffer:	Sodium phosphate 50 mM, NaCl 300 mM, Imidazole 20 mM, pH 8.0
Elution Buffer :	Sodium phosphate 50 mM, NaCl 300 mM, Imidazole 250 mM, pH 8.0

Buffers should be sterilized using a filter of 0.22 µm.

INSTRUCTIONS:

1. Column preparation

Purge the pump with distilled water removing all the air.
Connect the NeoTrap column to the pump by removing the end of the column and the top stop plug (save it for storage). Avoid introducing air in the column.

Wash the column with 5-10 column volumes of distilled water to eliminate the preservative.

2. Column equilibration

Equilibrate the column with 5 - 10 column volumes of binding buffer.

3. Sample application

It is recommended to dilute the sample containing the His-tagged proteins 1:1 with Binding Buffer to avoid ionic and pH changes.

All samples should be filtered through a 0.22 µm filter in order to remove particles before applying it into the column.

4. Column washing

Wash with the Washing Buffer until the O.D. 280 nm reaches the baseline level again, normally 10-20 column volumes.

5. Purified protein elution

Elute the His-tagged protein with 5-10 column volumes of Elution Buffer and collect the fractions on ice.
For the correct storage of the protein, it is recommended to remove the imidazole by dialysis or ultrafiltration.

6. Storage of the column

Put the top and bottom stop plugs in the column and keep at 2-8°C in 20% ethanol. **Do not freeze.**