NeoTrap GST FPLC Columns

#Cat: NB-19-0078-1mL Size: 1 ml
#Cat: NB-19-0078-5mL Size: 5 ml

Introduction

NeoTrap GST FPLC Columns are designed for simple, one-step and rapid purification of Glutathione S-transferase (GST)-tagged proteins. Other Glutathione S-transferases and Glutathione-binding proteins can also be purified with these columns. GST-tagged proteins expressed in bacteria, yeasts, insects and mammalian cell cultures can be purified in a single step.
Compatible with all common liquid chromatography instruments (including ÄKTA™ FPLC's), peristaltic pumps and syringes.

Specifications

PRODUCT	NeoTrap GST FPLC Columns	
Cat. No.	NB-19-0078-1ml	NB-19-0078-5ml
Column volume	1 ml	5 ml
Resin	4% highly crosslinked agarose	
Bead size	50-150 µm	
Ligand	Glutathione	
Binding capacity*	10 mg/ml resin	
Chemical stability	Compatible with all the commonly used aqueous buffers; stable at short contact to denaturants (e.g. 6M guanidine·HCl or 8M urea); compatible with common clean-in-place agents e.g. 70% ethanol, 0.1 M NaOH, 0.1 M HCl.	
pH stability	3-12	
Storage	4-8°C in 20% ethanol	

*Depends on the type of proteins and binding conditions

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Recommended Protocol for Purification:

Buffers needed:

Binding Buffer:	PBS, pH 4.7
Washing Buffer:	Can be the same as the binding buffer or may contain additional reagents (e.g., detergents, alcohol etc.) or have low pH value, in order to remove as many weakly bound impurities as possible.
Elution Buffer:	50 mM Tris / HCl containing 10 mM reduced glutathione, 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 3-5 column volumes of distilled water to eliminate the preservative.

2. Column equilibration

Equilibrate the column with 5 - 10 column volumes of binding buffer until the signal reaches the baseline or becomes stable.

3. Sample application

Target proteins can be directly purified from clarified cell lysates without extra treatment.
We recommend filtering the samples though a 0.22 µm filter in order to remove particles before applying it into the column.

4. Column washing

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

5. Purified protein elution

Elute the GST-tagged protein with 5-10 column volumes of elution buffer and collect the fractions on ice.
Buffer exchange and/or desalting might be required to adjust the pH and to remove glutathione in the eluted sample.

6. Storage of the column

Put the top and bottom stop plugs in the column and keep at 4-8 °C in 20% ethanol. **Do not freeze.**

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