DATA SHEET

Glutathione-Sepharose

CATALOG #:
6555-1 1 ml
6555-10 10 ml
6555-50 50 ml

PREPARATION:
Glutathione-Sepharose is prepared by covalently coupling glutathione to epoxy-activated 4 % cross-linked sepharose beads to form a stable thioether linkage. The coupling was optimized to give a high binding capacity and could be greater than 5 mg of Glutathione-S-transferase (GST) per ml of wet gel.

CONTENTS: Supplied as a 50 % slurry in 20 % Ethanol/ PBS; > 3 mg (10 1mol) glutathione per ml Sepharose beads.

FEATURES: The Glutathione-S-Transferase (GST) gene fusion system has been widely used for the over expression of foreign genes in *E. Coli*. The expressed fusion protein with a GST tail can be easily purified by affinity chromatography on Glutathione-Sepharose beads from the bacterial lysate. Glutathione-Sepharose is designed for the purpose of purification of such GST fusion proteins or any other kinds of glutathione binding proteins. This formulation exhibits excellent binding capacity, high flow rate, no significant loss of the glutathione ligand and a pH stability range of 2-10.

APPLICATIONS: Purification of GST-fusion proteins or other glutathionebinding proteins.

STORAGE: Store at 4°C. Do not freeze.

BUFFER EXAMPLE:
• Binding buffer: 1X PBS
• Elution buffer: 10 mM glutathione in 50 mM Tris, pH 8

USAGE: For Research Purpose Only! Not to be used in humans!

SUGGESTED PROTOCOL:
1. Wash column with ddH2O to remove air bubbles.
2. Fill column with heparin beads.
3. Wash the column with 5X volume of Binding Buffer.
4. Dilute sample with Binding Buffer (1:1 ratio) or change the sample solution to binding buffer by means of your choice.
5. Add the sample solution onto the column.
6. Collect the solution and repeat step 5 & 6 several times if necessary.
7. Wash the column 5-10 times with the Binding Buffer.

8. Add Elution Buffer to elute bound protein.
9. Collect the eluent using microcentrifuge tube.
10. Assay protein concentration and combine the fractions containing sufficient GST-fusion protein
11. Beads can be cleaned and regenerated by washing with 2-3x volume of high concentration salt solution and then the binding buffer

GLUTATHIONE-SEPHAROSE PROPERTIES

Bead Structure	4% cross-linked spherical agarose
Mean particle size	90 µm (45-165 µm)
Ligand	Glutathione
pH stability	2 - 10
Chemical stability	1M NaOH (1 wk, 20 °C) 0.01M NaOH , pH 12 0.01 M HCl, pH 2 4 M NaCl 8M urea 6M guanidine hydrochloride
Storage buffer	20 % Ethanol/ PBS

RELATED PRODUCTS:
Recombinant Protein A & Sepharose Beads
Recombinant Protein G & Sepharose Beads
Recombinant Protein L & Sepharose Beads
Recombinant Protein A/G & Sepharose Beads
Recombinant Protein A/G/L & Sepharose Beads
Protein A Polyclonal Antibody
Protein G Polyclonal Antibody
Protein L Polyclonal Antibody
Heparin-Sepharose

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