888.267.4436
techsupport@origene.com
www.origene.com

Name: Protein G Sepharose

Product Data Sheet

Catalog:
TP790005 (1 mL)
TP700006 (5 mL)

PREPARATION:

Protein G Sepharose is prepared by covalently coupling recombinant Protein G containing three IgG binding domain to 4% cross-linked sepharose beads. The coupling technique has been optimized for a high binding capacity of IgG, which is greater than 40 mg of mouse IgG per milliliter of wet gel.

FORM/STORAGE

Protein G Sepharose is supplied in a total volume of 1.5 mL consisting of 1 mL set resin suspended in 20% ethanol. It is stable for minimum 1 year upon receipt when stored at 2 - 8°C.

SPECIFICATIONS

Binding capacity: 20~40 mg/mL
Bead size range: 60~165 um
Recommended working pH: 2-11
Ligand density: **~7.5 mg Protein G/mL drained gel**
Bead structure: 4% highly cross-linked sepharose

Note: Different immunoglobulin derived from the same species and from the same subclass can demonstrate deviations in the binding capacity; Protein G may hydrolyze at low pH.

APPLICATION

Purification of monoclonal and polyclonal antibodies.

RELATED PRODUCTS

Recombinant Protein A Sepharose Beads (Cat# TP790010)

Example of Buffers (Prepared by User)

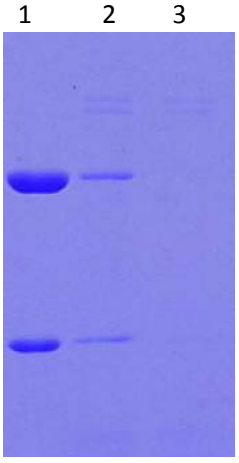
- Equilibration and Wash Buffer: 10 mM sodium phosphate, 150 mM sodium chloride, pH 7.2
- Elution Buffer: 0.1 M glycine, pH 2-3
- Neutralization Buffer: 1 M phosphate or 1 M TRIS, pH 7.5-9
- Regeneration Buffer: 20% (v/v) ethanol in phosphate buffered saline

Example of Procedure

1. Pack 1 mL of immobilized Protein G Sepharose into a suitable column.
2. Perform all chromatography steps at a flow rate of 0.5-1 mL/min, or under gravity flow.
3. Equilibrate the column with 5 mL of Equilibration and Wash Buffer.
4. Dialyze sample(s) against 100 volumes of Equilibration and Wash Buffer.
5. Filter the dialyzed sample(s) using a 0.2 mm filter.
6. Load the sample(s) onto the column.
7. Wash the column with 20 mL of Equilibration and Wash Buffer.
8. Elute the column with 10 mL of Elution Buffer.
9. Immediately adjust the eluate to pH 7.5 by adding Neutralization Buffer.
10. Wash the column with 10 mL of Regeneration Buffer and store at 4° C.

Note: The procedure outlined above can be scaled up or down as desired.

Validation Data



SDS-PAGE analysis of the purification of secreted antibody using Protein G Sepharose

Lane 1: Elute (containing antibodies)
Lane 2: Supernatant
Lane 3: Flow through