GeloPure L

Affinity Chromatography Media

Technical Datasheet

2464 Norwood street SW,
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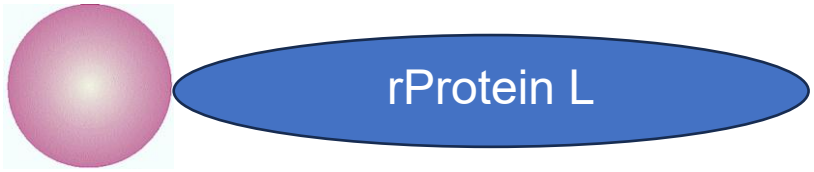
GeloPure L Resin

GeloPure L resin is basically rProtein L immobilised agarose based an affinity chromatography media used for the purification of immunoglobulins (IgG), primarily monoclonal antibodies. The ligand, recombinant Protein L, is immobilized on a spherical crosslinked agarose resin for high binding capacity



BioPure L

Ligand	Recombinant Protein L
Matrix	Crosslinked agarose beads 4%
Particle diameter	30-165 μm
Ligand Coupling	Covalent coupling via multipoint attachment
Dynamic Binding Capacity	>10mg/mL
Recommended CIP solution	0.2(M) NaOH, 0.2(M) NaOH in 20% EtOH, 0.2(M) NaOH in 95%EtOH
pH stability range	1～13
Storage	2～8 ºC in 20 % ethanol
Shelf Life	Typically, 1–2 years unopened

Binding Mechanism of GeloPure L Resin

Protein L is a cell wall protein originally derived from *Staphylococcus aureus*. It specifically binds to the **scFv (single-chain variable fragment) region of immunoglobulin G (IgG)** molecules, making it ideal for antibody purification.

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Application of GeloPure L Resin

GeloPure L resin is widely used for the purification of antibodies, particularly kappa light chain-containing immunoglobulins (Ig) from various species and subtypes. Unlike Protein A or G, which bind the Fc region, Protein L binds to the variable region of kappa light chains, making it ideal for:

- Purification of antibody fragments (Fab, scFv, VHH) lacking the Fc region
- Capture of monoclonal or polyclonal antibodies from ascites, serum, or cell culture supernatants
- Selective enrichment of recombinant antibodies from complex mixtures
- Affinity purification of engineered antibodies or light-chain fusion proteins
- Applications in diagnostics, therapeutic antibody development, and research involving human or mouse Ig light chains

Protein L resin is especially valuable when the antibody subtype does not bind to Protein A or G, or when preserving antibody function is critical.

Advantages of Using Protein L Resin

High selectivity for scFv region → high purity in one step.

High dynamic binding capacity (DBC ≥ 10 mg/mL).

Robust chemical stability → reusable for multiple cycles (up to 100+).

Compatible with CIP using NaOH, low pH elution, and other bioprocess conditions

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