

Purification Ligands for Bioprocessing

Protein A, Protein G, Protein L, Protein A/G, Protein A/G/L

Protein A/G/L is one type of recombinant fusion proteins that combines all the immunoglobulin-binding regions of Protein A, G, and L. Its binding abilities cover all commonly used biomedical host animal immunoglobulins, including various classes of antibodies such as IgG, IgM, IgA, IgE, and IgD, and antibody fragments such as Fab, scFv, and sdAb, except for IgY. Therefore, Protein A/G/L has the widest spectrum of immunoglobulin (antibody) binding. For specific immunoglobulin molecules, Protein A, G, and L can produce the highest binding strength and maximum binding capacity through synergistic effects at multiple binding sites. In addition, Protein A, G, and L bind specifically to the surface conformational epitopes of active immunoglobulins and do not bind to denatured or inactivated immunoglobulins that have lost their natural conformation.

Key Advantages:

- Broad product series
- High purity: >97%
- High lot to lot consistency and low endotoxin (<0.1EU/μg)
- An animal free fermentation process
- Manufacturing process that meets ISO9001:2015
- Stable supply chain

Protein A

Recombinant Protein A is produced in *E.Coli* and functions essentially the same as native Protein A. It consists of 5 IgG-binding domains E-D-A-B-C aligned in series. It binds the heavy chain within the Fc region of most immunoglobulins. It is ideal for purification of polyclonal or monoclonal IgG antibodies.

Cat. #	Product Name	Description	Size A	Size B	Size C	Special Order
1001-01	Protein A, His	Protein A with His-tag at C-terminus	10mg	100mg	1g	Inquiry
1001-02	Protein A-Cys, His	Protein A with His-tag and Cys residue at C-terminus	10mg	100mg	1g	Inquiry
1001-04	Protein A-Cys	Protein A with Cys residue at C-terminus	10mg	100mg	1g	Inquiry
1001-05	Protein A	5 IgG-binding domains	10mg	100mg	1g	Inquiry
1001-07	Protein A, Long Form	5 IgG-binding domains and cell membrane binding region, similar to native Protein A	10mg	100mg	1g	Inquiry
1001-09	Protein A-Cys, Long Form	5 IgG-binding domains and cell membrane binding region, similar to native Protein A, Cys residue at C-terminus	10mg	100mg	1g	Inquiry

Protein G

Protein G is a bacterial protein derived from the cell wall of certain strains of *b-hemolytic Streptococci*. It binds with high affinity to the Fc portion of various classes and subclasses of immunoglobulins from a variety of species. The recombinant Protein G is a genetically engineered protein containing 3 immunoglobulin-binding regions of protein G. Protein G binds to all IgG subclasses from human, mouse and rat species. It also binds to total IgG from guinea pig, rabbit, goat, cow, sheep, and horse. Protein G binds preferentially to the Fc portion of IgG, but can also bind to the Fab region, making it useful for purification of F(ab') fragments of IgG.

Cat. #	Product Name	Description	Size A	Size B	Size C	Special Order
1002-01	Protein G, His	Contains 3 immunoglobulin-binding regions with His-tag at C-terminus	5mg	50mg	1g	Inquiry
1002-03	Protein G	Contains 3 immunoglobulin-binding regions	5mg	50mg	1g	Inquiry
1002-04	Cys-Protein G	Contains 3 immunoglobulin-binding regions with Cys residus at N-terminus	5mg	50mg	1g	Inquiry

Protein A/G

The recombinant Protein A/G is a genetically engineered protein containing 5 immunoglobulin-binding regions of protein A and 2 regions of protein G. The binding capacity of Protein A/G is broader than either Protein A or Protein G alone. The extended Fc-binding properties of Protein A/G make it a popular tool in the purification of immunoglobulins. Protein A/G binds to all human IgG subclasses, IgA, IgE, IgM and to a lesser extent IgD.

Cat. #	Product Name	Description	Size A	Size B	Size C	Size G	Special Order
1003-01	Protein A/G, His	Contains 7 immunoglobulin-binding regions with His-tag at C-terminus	1mg	25mg	100mg	1g	Inquiry
1003-02	Protein A/G	Contains 7 immunoglobulin-binding regions	1mg	25mg	100mg	1g	Inquiry
1003-03	Cys-Protein A/G	Contains 7 immunoglobulin-binding regions with Cys residus at N-terminus	1mg	25mg	100mg	1g	Inquiry
1003-04	Protein A/G-Cys	Contains 7 immunoglobulin-binding regions with Cys residus at C-terminus	1mg	25mg	100mg	1g	Inquiry

Protein L

Recombinant Protein L contains 5 kappa-binding domain. Protein L has the unique ability to bind through kappa light chain interactions without interfering with the antibody's antigen-binding site. This gives Protein L the ability to bind a wider range of Ig classes and subclasses than other antibody-binding proteins.

Cat. #	Product Name	Description	Size A	Size B	Size C	Size G	Special Order
1004-01	Protein L, His	Contains 5 immunoglobulin-binding regions with His-tag at N-terminus	1mg	25mg	100mg	1g	Inquiry
1004-02	Protein L-Cys, His	Contains 5 immunoglobulin-binding regions with His-tag at N-terminus and Cys residus at C-terminus	1mg	25mg	100mg	1g	Inquiry
1004-03	Protein L-Cys	Contains 5 immunoglobulin-binding regions with Cys residus at C-terminus	1mg	25mg	100mg	1g	Inquiry
1004-04	Protein L	Contains 5 immunoglobulin-binding regions	1mg	25mg	100mg	1g	Inquiry
1004-05	Cys-Protein L	Contains 5 immunoglobulin-binding regions with Cys residus at N-terminus	1mg	25mg	100mg	1g	Inquiry

Protein A/G/L

Recombinant fusion protein A/G/L contains five Ig-binding regions of protein L, five IgG binding domains from Protein A, and two Ig-binding region of protein G. Protein A/G/L binds to all human IgG subclasses, IgA, IgE, IgM and IgD.

Cat. #	Product Name	Description	Size A	Size B	Size C	Size G	Special Order
1006-01	Protein A/G/L	Contains 12 immunoglobulin-binding regions	1mg	25mg	100mg	1g	Inquiry
1006-02	Protein A/G/L-Cys	Contains 12 immunoglobulin-binding regions with Cys residus at C-terminus	1mg	25mg	100mg	1g	Inquiry
1006-03	Cys-Protein A/G/L	Contains 12 immunoglobulin-binding regions with Cys residus at N-terminus	1mg	25mg	100mg	1g	Inquiry