



Recombinant Protein A

1. Product Description

1.1 Product description

Natural Protein A is a cell wall protein isolated from Staphylococcus aureus and consists of a single peptide chain. Recombinant protein A expressed by Escherichia coli, has a molecular weight of about 13 kDa (SDS-PAGE) and contains only five high affinity regions that bind to IgG's Fc, reducing non-specific adsorption. Protein A binds to mammalian IgG, but does not bind to dog IgG, and does not bind to human IgM, IgD, and IgA (Refer to Table 1 for details). Protein A has the best binding effect with IgG at pH8.2, and also binds well under neutral or physiological conditions (pH7.0-7.6).

1.2 Storage Solution

5 mg/ml dissolved in 1×PBS

1.3 Storage Temperature

Store at 2-8℃ for one month and -20℃ for one year

1.4 Combining Capacity

Protein A and protein G have different binding ability to different sources and subclasses of immunoglobulins.

Table1. Relative binding strengths of antibodies from various species to protein G and protein A as measured in a competitive ELISA test.

Species	Subclass	Protein A binding	Protein G binding
Human	IgA	variable	—
	IgD	—	—
	IgE	—	—
	IgG1	++++	++++
	IgG2	++++	++++
	IgG3	—	++++
	IgG4	++++	++++
	IgGM	variable	—
Avian egg yolk	IgY	—	—
Cow		++	++++
Dog		++	+
Goat		—	++
Guinea pig	IgG1	++++	++
	IgG2	++++	++
Hamster		+	++
Horse		++	++++
Koala		—	+
Llama		—	+
Monkey(rhesus)		++++	++++
Mouse	IgG1	+	++++
	IgG2a	++++	++++
	IgG2b	+++	+++
	IgG3	++	+++
	IgM	variable	—
Pig		+++	+++
Rabbit	no distinction	++++	+++
Rat	IgG1	—	+
	IgG2a	—	++++
	IgG2b	—	++
	IgG3	+	++
Sheep		+/-	++



2. Product application

- 1) As a ligand coupling to prepare antibody affinity medium, for antibody purification or immunoprecipitation and immunocoprecipitation, and also for chromatin immunocoprecipitation.
- 2) After labeled with fluorescein such as HRP, Biotin or FITC, or directly used for ELISA and WesternBlot detection. Should only be used with single antibody detection systems, otherwise false positives may be produced.
- 3) As an antigen, immunize animals.

3. Related Products

Product	Cat. No.	Size
Recombinant Protein A	SLP00301	5 mg
	SLP00302	50 mg
	SLP00303	1 g
Recombinant Protein G	SLP00201	5 mg
	SLP00202	50 mg
	SLP00203	1 g
Recombinant Protein L	SLP01301	5 mg
	SLP01302	50 mg
	SLP01303	1 g

