



## Product Information Sheet

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**Product Name:** Protein A, recombinant

**Catalog Number:** AS-72233-1000

**Amount:** 1000 mg

**Purity:** >95% by SDS-PAGE.

**Formulation:** Sterile salt-free liquid at 25mg/ml

**Storage:** Protein A is stable for 1-2 weeks at 4°C. For long-term storage, divide the solution into aliquots and store at -20°C or add an equal volume of glycerol (ACS grade or higher) and store at -20°C without aliquoting. Avoid multiple thaw-freeze cycles. The product is stable for 1 year at -20°C.

**Description:** Protein A is a non-glycosylated cell wall protein of *Staphylococcus aureus* that can bind the Fc part of immunoglobulin molecule of different species with strong affinity.<sup>1-4</sup> Protein A consists of five IgG binding domains (A, B, C, D, and E), each approximately 60 amino acids long with no cysteines present and two *Staphylococcus aureus* cell membrane binding domains (X and M).<sup>3</sup>

AnaSpec's recombinant Protein A consists of only IgG binding domains. Its apparent molecular weight is approximately 30,000 Da compared to 42,000 Da for the native Protein A that is found in *Staphylococcus aureus*. Recombinant Protein A can be used for immunoprecipitation, antibodies purification, and assay development.

Figure 1. Protein A Purity.

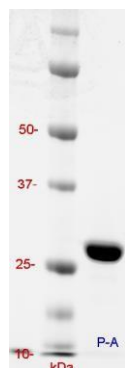


Table 1. Protein A affinity to selected species.

Immunoglobulin Species	Protein A Binding
Human IgG <sub>1</sub> , IgG <sub>2</sub> , IgG <sub>4</sub>	Strong
Human IgG <sub>3</sub> , IgD	None
Human IgM, IgA	Weak
Mouse IgG <sub>1</sub>	Weak
Mouse IgG <sub>2A</sub> , IgG <sub>2B</sub> , IgG <sub>3</sub>	Strong
Mouse IgM	None
Rat IgG <sub>1</sub>	Weak
Rat IgG <sub>2A</sub> , IgG <sub>2B</sub>	None
Rat IgG <sub>2C</sub>	Strong
Goat IgG <sub>1</sub>	Weak
Goat IgG <sub>2</sub>	Strong
Bovine IgG <sub>1</sub>	None
Bovine IgG <sub>2</sub>	Strong
Guinea Pig IgG	Strong
Rabbit IgG	Strong
Chicken IgG (IgY)	None

Related Products:

Product Name	Catalog#
Protein A-Biotin Conjugate, 1mg	AS-72234
Protein A-HiLyte™ Fluor 488 Conjugate, 1mg	AS-72235
Protein A-HiLyte™ Fluor 555 Conjugate, 1mg	AS-72236
Protein A-HiLyte™ Fluor 647 Conjugate, 1mg	AS-72237
Protein A-HiLyte™ Fluor 750 Conjugate, 1mg	AS-72239

References:

1. Björk, I. *Eur J Biochem* **29** (1972):579-584.
2. Sjödaahl, J. *Eur J Biochem* **78** (1977): 471-490.
3. Schröder, A. K. et al. *Immunol* **57** (1985): 305-309.
4. Rosenberg, I.M. *Protein Analysis and Purification*, Birkhäuser, 2005: 41-47.

**For *in vitro* research use only**