

Product Information Sheet

Product Name: Recombinant Protein A

Catalog Number: AS-72233-5, AS-72233-25, AS-72233-100, AS-72233-1000

Source: Escherichia coli.

Amount: 5, 25, 100, and 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.

Description: Protein A is a non-glycosylated cell-wall protein of *Staphylococcus aureus* that can

bind Fc part of immunoglobulin molecule of different species with strong affinity. ¹⁻⁴ Protein A consists of five IgG binding domains (A, B, C, D, and E) each is approximately 60 amino acids long with no cycteines present and two

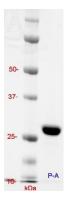
Staphylococcus aureus cell membrane binding domains (X and M).³

Anaspec recombinant Protein A consists of only IgG binding domains and was expressed in *E.coli*. It's 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 ₁ , IgG ₂ , IgG ₄	Strong
Human IgG ₃ , IgD	None
Human IgM, IgA	Weak
Mouse IgG₁	Weak
Mouse IgG _{2A} , IgG _{2B} , IgG ₃	Strong
Mouse IgM	None
Rat IgG₁	Weak
Rat IgG _{2A} , IgG _{2B}	None
Rat IgG _{2C}	Strong
Goat IgG₁	Weak
Goat IgG ₂	Strong
Bovine IgG₁	None
Bovine IgG ₂	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 TM -488 Conjugate, 1mg	AS-72235
Protein A-HiLyte TM -555 Conjugate, 1mg	AS-72236
Protein A-HiLyte TM -647 Conjugate, 1mg	AS-72237
Protein A-HiLyte TM -680 Conjugate, 1mg	AS-72238
Protein A-HiLyte TM -750 Conjugate, 1mg	AS-72239

References:

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

For in vitro research use only.