

## Product datasheet for **RA100HRP**

### Protein A (Peroxidase conjugated) Staphylococcus aureus Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Protein A (Peroxidase conjugated) s. aureus protein, 2 mg
Species:	Staphylococcus aureus
Concentration:	lot specific
Purity:	This product was prepared from chromatographically pure Protein A.
Conjugation:	HRP
Buffer:	State: Lyophilized purified protein Buffer System: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 Preservative: 0.01% (w/v) Gentamicin Sulfate Stabilizer: 10 mg/ml BSA (IgG and Protease free) Presentation Label: HRP
Reconstitution Method:	Restore with 1.0 ml of deionized water (or equivalent).
Preparation:	Lyophilized purified protein
Applications:	Suitable for Immunoblotting (Western or Dot blot), ELISA, Immunoperoxidase Electron Microscopy and Immunohistochemistry as well as other peroxidase-antibody based enzymatic assays requiring lot-to-lot consistency. <i>Recommended Dilutions:</i> ELISA: 1/20,000-1/200,000. Western Blot: 1/10,000-1/40,000. Immunohistochemistry: 1/1,000-1/5,000. <i>Note:</i> Protein A Peroxidase is a useful reagent in Western Blotting and ELISA experiments. Protein A Peroxidase can be utilized as a pseudo-secondary detection reagent when used in conjunction with an IgG-based primary antibody and appropriate substrate (such as TMB-1000 or Fentomax-110).
Protein Description:	Horseradish Peroxidase (HRP) conjugated Protein A. Assay by Immunoelectrophoresis resulted in a single precipitin arc against anti-Peroxidase and anti-Protein A. No reaction was observed against anti-Protein G



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<b>Note:</b>	<p><b>Molecular Weight:</b> (protein A): 40,000 daltons.</p> <p>Caution: Do <b>Not</b> Add Sodium Azide.</p>
<b>Storage:</b>	<p>Store vial at 2-8°C prior to restoration. Restore with deionized water or equivalent; centrifuge product if not completely clear after standing at room temperature. This product is stable for one month at 2-8°C as an undiluted liquid.</p> <p>For extended storage mix product with glycerol to 50% and then aliquot contents and freeze at -20°C or below. Avoid cycles of freezing and thawing.</p> <p>Dilute only prior to immediate use.</p>
<b>Stability:</b>	<p>Shelf life: one year from despatch.</p>
<b>Summary:</b>	<p>Protein A is a surface protein of <i>S.aureus</i> which binds IgG molecules by their Fc region. In serum, the bacteria will bind IgG molecules in the wrong orientation on their surface which hinders opsonization and phagocytosis. Mutants of <i>S. aureus</i> lacking protein A are more efficiently phagocytosed <i>in vitro</i>, and mutants in infection models have diminished virulence. Due to its affinity for the Fc region of many mammalian immunoglobulins, protein A is considered a universal reagent in biochemistry and immunology.</p> <p>Protein A is a surface protein (approximately 56kDa in size) originally discovered within the cell wall of Staphylococcus aureus. While important for bacterial survival, Protein A has beneficial uses in immunology for its high affinity binding to immunoglobulins (especially the IgG isotype). This high affinity property makes Protein A essential in the large scale purification of antibodies.</p> <p>Horseradish Peroxidase (HRP) is an enzyme that utilize organic peroxide compounds as electron donors. Naturally provides protection for plants against pathogens, but can be utilized in molecular biology to convert various substrates to detectable compounds (such as in Western Blotting and ELISAs).</p>
<b>Protein Families:</b>	<p>Suitable for Immunoblotting (Western or Dot blot), ELISA, Immunoperoxidase Electron Microscopy and Immunohistochemistry as well as other peroxidase-antibody based enzymatic assays requiring lot-to-lot consistency.</p> <p><u>Recommended Dilutions:</u></p> <p>ELISA: 1/20,000-1/200,000.</p> <p>Western Blot: 1/10,000-1/40,000.</p> <p>Immunohistochemistry: 1/1,000-1/5,000.</p> <p><u>Note:</u> Protein A Peroxidase is a useful reagent in Western Blotting and ELISA experiments. Protein A Peroxidase can be utilized as a pseudo-secondary detection reagent when used in conjunction with an IgG-based primary antibody and appropriate substrate (such as TMB-1000 or Fentomax-110).</p>