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### **Staphylococcal Protein A, 434-aa Recombinant RECOMBINANT PROTEIN**

**Catalog Number:** PRP-686PRO  
**Quantity:** 10 micrograms, 50 micrograms, 1 milligram  
**Format:** Sterile-filtered colorless solution  
**Host:** *E. coli*

#### **Background:**

Protein A is a cell-wall protein derived from *Staphylococcus aureus* which has unique binding properties to a variety of mammalian species of IgG. It can also bind some IgM and IgA. Protein A binds the Fc region of immunoglobulins through interaction with the heavy chain. It can be coupled to a variety of reporter molecules, such as fluorescent dyes, enzyme markers, biotin, colloidal gold, and radioactive iodine without affecting the antibody binding site. The recombinant version of protein A was developed to increase the specificity for IgG.

#### **Specificity and Preparation:**

The recombinant protein A is produced by expressing a modified protein A gene in *E. coli*. It is a non-glycosylated, polypeptide containing 434 amino acids (37-469 a.a.) and having a molecular mass of 48.1 kDa. The protein solution contains 20mM Tris-HCl, pH-8 and 10% glycerol. Purity is greater than 90% as determined by SDS-PAGE. Human IgG is not used in the purification of protein A. This protein A does not contain endotoxin that is frequently found in native protein A.

Sequence: MAQHDEAQQN AFYQVLNMPN LNADQRNGFI QSLKDDPSQS ANVLGEAQKL  
NDSQAPKADA QQNNFNKDQQ SAFYEILNMP NLNEAQRNGFIQSLKDDPSQ STNVLGEAKK  
LNESQAPKAD NNFNKEQQNA FYEILNMPNL NEEQRNGFIQ SLKDDPSQSA NLLSEAKKLN  
ESQAPKADNK  
FNKEQQNAFY EILHLPNLNE EQRNGFIQSL KDDPSQSANL LAEAKKLNDA QAPKADNKFN  
KEQQNAFYEI LHLPNLTEEQ RNGFIQSLKDDPSVSKEILA EAKKLNDAQA PKEEDNNKPG  
KEDNNKPGKE DNNKPGKEDG NKPGKEDNKK PGKEDNKKPG KEDNKKPGKE DGNKPGKEDN  
KKPGKEDGNG VHVVKPGDTV NDIKANGTT ADKIAADNKL ADKNMIKPGQ ELVVDKKQPA  
NHADANKAQA LPET.

#### **Usage and Storage:**

Store at 4°C for use within 2-4 weeks. Store frozen at -20°C for longer periods of time. For long-term storage, it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid repeated freezing and thawing. Gently spin down material before use; 5-10 seconds in a microfuge should be adequate.

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