



6352 CORTE DEL ABETO, STE B
CARLSBAD, CA 92011 USA
01.858.642.1988 • WWW.ATSBIO.COM

Staphylococcal Protein A, 434-aa Recombinant RECOMBINANT PROTEIN

Catalog Number: PRP-650
Quantity: 10 micrograms, 100 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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