

# Recombinant Staphylococcal Putative IgG-binding Protein

Cat. No. ProteinA-1390S Lot. No. (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                        |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Staphylococcal Protein A produced in <i>E. Coli</i> is a non-glycosylated, Polypeptide chain containing 434 amino acids (37-469 a.a.) and having a molecular mass of 48.1 kDa. Recombinant Staphylococcal Protein A is purified by proprietary chromatographic techniques. |
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| <b>Species</b> | Staphylococcus |
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|---------------|--------|
| <b>Source</b> | E.coli |
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|-----------------------|-------------|
| <b>Protein Length</b> | 37-469 a.a. |
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| <b>Description</b> | <p>Protein A is a cell wall protein deriving from <i>Staphylococcus aureus</i> which exhibits unique binding properties for IgG from a variety of mammalian species and for some IgM and IgA as well. It binds with the Fc region of immunoglobulins through interaction with the heavy chain. It couples to a wide variety of reporter molecules including fluorescent dyes, enzyme markers, biotin, colloidal gold and radioactive iodine without affecting the antibody binding site. Recombinant Protein A was developed to increase the specificity of the molecule for IgG and is widely used both in research and bioprocessing. The recombinant protein A is produced by expressing a modified protein A gene in <i>E. coli</i>. A specific purification process with strict quality control was taken to get the recombinant protein A with the purity of more than 98% , no human IgG affinity step is used during validated fermentation and purification and devoid of bacterial contaminant found normally in native Protein A. (Free of <i>Staphylococcus</i> endotoxins and hemolysin).</p> |
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**Amino Acid Sequence**

MAQHDEAQQN AFYQVLNMPN LNADQRNGFI QSLKDDPSQS ANVLGEAQL  
 NDSQAPKADA QQNNFNKDQQ SAFYEILNMP NLNEAQRNGFIQSLKDDPSQ  
 STNVLGEAKK LNESQAPKAD NNFNKEQQNA FYEILNMPNL NEEQRNGFIQ  
 SLKDDPSQSA NLLSEAKKLN ESQAPKADNK FNKEQQNAFY EILHLPNLNE  
 EQRNGFIQSL KDDPSQSANL LAEAKKLND A QAPKADNKFN KEQQNAFYEI  
 LHLPLNLT EEQ R NGFIQSLKDDPSVSKEILA EAKKLND AQA PKEEDNNKPG  
 KEDNNKPGKE DNNKPGKEDG N KPGKEDNKK PGKEDNKKPG KEDNKKPGKE  
 DGNKPGKEDN KKPGKEDGNG VHVVKPGDTV NDI AKANGTT ADKIAADNKL  
 ADKNMIKPGQ ELVVDKKQPA NHADANKAQA LPET.

**Physical Appearance**

Sterile filtered colorless solution.

**Formulation**

The Protein-A protein solution contains 20mM Tris-HCl, pH-8 and 10% glycerol.

**Purity**

Greater than 90.0% as determined by SDS-PAGE.

**Stability**

Store at 4°C if entire vial will be used 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 multiple freeze-thaw cycles.

## GENE INFORMATION

**Gene Name**

*Sca\_1511 putative IgG-binding protein [ Staphylococcus carnosus subsp. carnosus TM300 ]*

**Synonyms**

Protein A; putative IgG-binding protein

**Gene ID**

7550673

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