

Recombinant Staphylococcal Putative IgG-binding Protein

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

SPECIFICATION

Product Overview Recombinant Staphylococcal Protein A produced in *E. Coli* 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.

Species Staphylococcus

Source E.coli

ProteinLength 37-469 a.a.

Description Protein A is a cell wall protein deriving from *Staphylococcus aureus* 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 *E.coli*. 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 *Staphylococcus* endotoxins and hemolysin).

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

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 RNGFIQSLKDDPSVSKEILA EAKKLND AQA PKEEDNNKPG
 KEDNNKPGKE DNNKPGKEDG NKP GKEDNKK PGKEDNKKPG KEDNKKPGKE
 DGNKPGKEDN KKP GKEDGNG 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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