

Recombinant protein A

Catalog Number: bs-0362P

AA Seq: 37-469/516

Predicted MW: 34

Detected MW: 45-47 kDa

Tags: Tag free

Activity: Yes

Endotoxin: Not analyzed

Purity: >95% as determined by SDS-PAGE

Purification: AC

Form: Lyophilized

Storage: Lyophilized from 0.22um filtered solution in PBS (pH7.4) with 5mM DTT. Normally 5% trehalose is added as protectant before Lyophilization.

Stored at -70°C or -20°C. Avoid repeated freeze/thaw cycles.

Background: Protein A is a 40-60 kDa surface protein originally found in the cell wall of the bacteria *Staphylococcus aureus* (SPA). SPA binds proteins from many of mammalian species, most notably IgGs, and helps inhibit phagocytic engulfment and acts as an immunological disguise via this type of interaction, thus the bacteria will disrupts opsonization and phagocytosis. SPA is known to bind with Fc region of immunoglobulins preferentially through interaction with the VH3 variable region of the heavy chain. SPA has been shown to bind with high affinity to human IgG1 and IgG2 as well as mouse IgG2a and IgG2b, whereas bind with moderate affinity to human IgM, IgA and IgE as well as mouse IgG3 and IgG1. SPA is often produced in *E. coli* and is practically coupled to other molecules such as enzymes, biotin, radioactive iodine for use in immunology and other biological research. SPA is also immobilized onto solid supports such as agarose beads for total IgG purifying or interest protein or protein complex identifying in immunoprecipitation studies.

VALIDATION IMAGES



The purity of the protein is greater than 90% as

PRODUCT SPECIFIC PUBLICATIONS

[IF=6.556] Lizhong Zhang. et al. Ultra-precise weak measurement-based interfacial biosensors. TALANTA. 2022 Dec;;124217 Other ; . 10.1016/j.talanta.2022.124217

[IF=3.43] Qi, Honglan, Chen Wang, and Ning Cheng. "Label-free electrochemical impedance spectroscopy biosensor for the determination of human immunoglobulin G." Microchimica Acta 170.1-2 (2010): 33-38. Other ; . 10.1007/s00604-010-0382-5

[IF=3.38] Ma, Qiufeng, et al. "Construction and operation of a microrobot based on magnetotactic bacteria in a microfluidic chip." Biomicrofluidics 6 (2012): 024107. Other ; . 22655018

[IF=3.286] Li Q et al. Oriented assembly of surface plasmon resonance biosensor through staphylococcal protein A for the chlorpyrifos detection. Anal Bioanal Chem. 2019 Jul 5. Other ; Monkey . 31278555