Recombinant Protein A

Catalog No.	CSI20280A	**Quantity:**	5 mg
	CSI20280B		100 mg
	CSI20280C		1 g

Description: Protein A is a cell wall component produced by several strains of Staphylococcus aureus that consists of a single polypeptide chain and contains little or no carbohydrate. Recombinant Protein A is produced in *E.coli* and functions essentially the same as native Protein A. It consists of 5 IgG binding domains E-D-A-B-C aligned in series. It migrates with an apparent molecular mass of 32 kDa in SDS-PAGE.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

Source: *E. coli*

Molecular Mass: 32 kDa

Formulation: Lyophilized with no additive.

Purity: >97% by SDS-PAGE analyses.

Endotoxin Level: Less than 0.1EU/ug of Protein A as determined by LAL method.

Reconsititution: Dissolve in distilled water or saline.

A_{280} of 0.1% solution: 0.165

Specific Activity: The interaction between Protein A and IgG is not equivalent for all species. Even within a species, Protein A interacts with some subclasses of IgG and not others. For instance, human IgG1, IgG2 and IgG4 bind strongly, while IgG3 does not bind. There are also many instances in which monoclonal antibodies do not bind to Protein A, especially the majority of rat immunoglobulins and mouse IgG1.

Reconstitution: Dissolve in distilled water or saline.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

Storage & Stability: Aliquot and store at -20°C. Stable for 2 years at -20°C. **Avoid repeated freeze-thaw cycles.**

Applications: The Protein A molecule contains four high-affinity (K_a =10^8/mole) binding sites capable of interacting with the Fc region from IgG of several species including human and rabbit (Table 1). Optimal binding occurs a pH 8.2, although binding is also good at neutral or physiological conditions (pH 7.0-7.6).

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