



## Protein A (DAG390)

This product is for research use only and is not intended for diagnostic use.

### PRODUCT INFORMATION

Species	N/A
Conjugate	Unconjugated
Applications	Specific methodologies have not been tested using this product.
Format	Purified, Liquid
Preservative	None
Storage	2-8°C short term, -20°C long term

### BACKGROUND

Introduction	<p>Protein A is a 42 kDa surface protein originally found in the cell wall of the bacterium <i>Staphylococcus aureus</i>. It is encoded by the <i>spa</i> gene and its regulation is controlled by DNA topology, cellular osmolarity, and a two-component system called ArlS-ArlR. It has found use in biochemical research because of its ability to bind immunoglobulins. It is composed of five homologous Ig-binding domains that fold into a three-helix bundle. Each domain is able to bind proteins from many mammalian species, most notably IgGs. It binds the heavy chain within the Fc region of most immunoglobulins and also within the Fab region in the case of the human VH3 family. Through these interactions in serum, where IgG molecules are bound in the wrong orientation (in relation to normal antibody function), the bacteria disrupts opsonization and phagocytosis.</p>
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