

## PROTEIN A COATED PCR PLATES

The Biomat product is a PCR plate coated with recombinant Protein A and a protein to block non-specific binding sites and to maintain stable activity.

Protein A coated surface is designed for capture specific and sterically oriented IgG applied directly or as antigen/antibody complex. Among its applications there are: separation of IgG from other immunoglobulins or contaminants, separation of antigen-antibodies complex and isolation and analysis of fusion proteins.

Protein A specifically binds the Fc region of immunoglobulins of many mammalian species with different degrees of binding strength (see table 1 below), with an orientation that allows the F(ab)<sub>2</sub> binding sites to be freely available for efficient binding to epitope. When coated onto PCR plate, the Protein A can securely capture IgG applied directly or as antigen/antibody complexes.

Example of applications:

- **specific and sterically oriented bond of IgG**
- **separation of IgG from other immunoglobulins**
- **separation of antigen-antibodies complexes**
- **separation of IgG from contaminants**
- **isolation and analysis of fusion proteins**

### **Product specifications**

#### **Coating**

Recombinant Protein A (M.W. 38.9 kDa), from *Staphylococcus aureus subsp. Aureus*, expressed in *E. coli*, is coated using 100 µl/tube. The PCR plates are post-coated (blocked) for low non specific binding and long-term stability.

#### **Storage and Stability**

The Protein A PCR plates, under the indicated storage conditions 2-8 °C, are stable until the expiration date printed on the label.

If opened, store in closed pouch with desiccant and use within the expiration date.

**Table 1.** Binding affinities of recombinant Protein A and G for Immunoglobulin binding domains

Species	Ig Subclass	Protein A	Protein G
<b>Human</b>	Total Ig	S	S
	IgG1, IgG2, IgG4	S	S
	IgG3	W	S
	IgD	W	N
	IgA	W	N
	IgE	W	N
	IgM	W	N
<b>Mouse</b>	Total Ig	S	S
	IgG1	W	M
	IgG2a, IgG2b, IgG3	S	S
	IgM	N	N
<b>Rabbit</b>	IgG	S	S
<b>Rat</b>	IgG	N	W-S
<b>Goat</b>	IgG	W-M	M-S
<b>Sheep</b>	IgG	W-M	M-S
<b>Chicken</b>	IgG	N	W
<b>Guinea Pig</b>	IgG	S	W-M
<b>Hamster</b>	IgG	W	M
<b>Horse</b>	IgG	W	S
<b>Pig</b>	IgG	S	W-M
<b>Bovine</b>	IgG	M	S
<b>Dog</b>	IgG	S	W-M
<b>Cat</b>	IgG	S	W

(The table above gives an overview of binding strengths of protein A and G to different species and subclasses. **S**: strong binding; **M**: medium binding; **W**: weak binding; **N**: no binding)