

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)₂ 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
Human	Total Ig	S	S
	IgG1, IgG2, IgG4	S	S
	IgG3	W	S
	IgD	W	N
	IgA	W	N
	IgE	W	N
	IgM	W	N
Mouse	Total Ig	S	S
	IgG1	W	M
	IgG2a, IgG2b, IgG3	S	S
	IgM	N	N
Rabbit	IgG	S	S
Rat	IgG	N	W-S
Goat	IgG	W-M	M-S
Sheep	IgG	W-M	M-S
Chicken	IgG	N	W
Guinea Pig	IgG	S	W-M
Hamster	IgG	W	M
Horse	IgG	W	S
Pig	IgG	S	W-M
Bovine	IgG	M	S
Dog	IgG	S	W-M
Cat	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)