PROTEIN A/G COATED PCR PLATES

The Biomat product is a PCR plate coated with recombinant Protein A/G and a protein to block non-specific binding sites and to maintain stable activity.
Protein A/G includes four Fc binding domains from Protein A and two from Protein G making it a more versatile tool.
Protein A/G specifically binds the Fc region of immunoglobulins of many mammalian species with different degrees of binding strenght (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/G can securely capture IgG applied directly or as antigen/antibody complexes.

Example of applications:

- **specific and sterically oriented bond of antibodies**
- **highest specificity and capacity**
- **retains antibody activity and orients antibody for maximum binding**
- **generally not suitable for sandwich ELISA assays**

Product specifications

Coating
Recombinant Protein A/G (M.W. 50.4 kDa) is a fusion protein between Protein A and Protein G. The Protein A portion is from *Staphylococcus aureus* segments E, D, A, B and C and the Protein G portion is from *Streptococcus sp.* segments C1 and C3, expressed in *E. coli*. Protein A/G 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/G 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, G and A/G for antibodies class.
(The table 1 gives an overview of binding strengths of protein A, G and A/G to different species and subclasses.)

Species	Antibody Class	Protein A	Protein G	Protein A/G
Human	Total IgG	S	S	S
	IgG_1, IgG_2, IgG_4	S	S	S
	IgG_3	W	S	S
	IgM	W	N	W
	IgD	N	N	N
	IgA	W	N	W
	Fab	W	W	W
	ScFv	W	N	W
Mouse	Total IgG	S	S	S
	IgG_1	W	M	M
	IgG_{2a}, IgG_{2b}, IgG_3	S	S	S
	IgM	N	N	N
Rabbit	Total IgG	S	S	S
Guinea Pig	Total IgG	S	W	S
Rat	Total IgG	W	M	M
	IgG_1	W	M	M
	IgG_{2a}	N	S	S
	IgG_{2b}	N	W	W
	IgG_{2c}	S	S	S
Goat	Total IgG	W	S	S
	IgG_1	W	S	S
	IgG_2	S	S	S
Sheep	IgG	W	S	S
	IgG_1	W	S	S
	IgG_2	S	S	S
Chicken	Total IgY	N	N	N
Hamster	Total IgG	M	M	M
Horse	Total IgG	W	S	S
	IgG(ab)	W	N	W
	IgG(c)	W	N	W
	IgG(T)	N	S	S
Pig	Total IgG	S	W	S
Bovine	Total IgG	W	S	S
	IgG_1	W	S	S
	IgG_2	S	S	S
Dog	Total IgG	S	W	S
Cat	Total IgG	S	W	S
Monkey	Total IgG	S	S	S
Donkey	Total IgG	M	S	S

S: strong binding; M: medium binding; W: weak binding; N: no binding