biomat

PROTEIN G COATED PCR 8 STRIP TUBES

The Biomat product is a PCR 8 strip tubes coated with recombinant Protein G and a protein to block non-specific binding sites and to maintain stable activity.

Protein 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 8 strip tubes, the Protein G 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**
- **isolation and analysis of fusion proteins**

Product specifications

Coating
Recombinant Protein G (M.W. 26.1 kDa), from *Streptococcus sp.*, expressed in *E. coli*, is coated using 100 µl/tube. The PCR 8 strip tubes are post-coated (blocked) for low non specific binding and long-term stability.

Uniformity
Protein G PCR 8 strip tubes show a **CV% less than 10** when used as a catcher of biotinylated human IgG in an ELISA format using streptavidin-HRP as detector and TMB as substrate.

Storage and Stability
The Protein G PCR 8 strip tubes, 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)