ReadiPrep™ Protein G Magnetic Agarose Beads

Catalog Number: V105100, V105101
Unit Size: 1 mL, 5 mL

Product Details

Storage Conditions	Refrigerated (2-8 °C)
Expiration Date	12 months upon receiving

Chemical Properties

Appearance	Liquid
Molecular Weight	N/A
Soluble In	N/A

Spectral Properties

Excitation Wavelength	N/A
Emission Wavelength	N/A

Applications

Protein G magnetic agarose beads are used extensively for immunoprecipitation (IP) studies and purification of immunoglobulins (IgGs).

- **High capacity** — binds greater than 10 mg of rabbit IgG per 1 mL of beads
- **Exceptional performance** — improve sample throughput and recovery while minimizing loss
- **Flexible application** — purify antibodies from serum, tissue extracts and other complex samples

Protein G magnetic agarose beads are provided as a 25% (250 mg / mL) suspension and are capable of binding greater than 10 mg / mL of antibody depending on the species. High quality manufacturing ensures consistent batch-to-batch performance.

To use, beads are first added to the sample, capturing antibodies of interest. Then the beads are washed while held in place by a magnet. Finally, the target is eluted using a low pH elution buffer. This process eliminates the need for centrifugation, reducing hands-on time, while maximizing sample recovery.

Protein G is a streptococcal bacteria derived protein that specifically targets the Fab and Fc regions of immunoglobulins (IgGs). The table below shows the binding affinity of protein G and protein A for IgGs of different species [1,2].

Species	Immunoglobulin (IgG)	Protein G binding	Protein A binding
Human	IgG	++++	++++
	IgG_1	++++	++++
	IgG_2	++++	++++
	IgG_3	++++	-

Mouse	IgG_4	++++	++++
	IgG_1	++++	+
	IgG_{2a}	++++	++++
	IgG_{2b}	+++	+++
Rat	IgG_3	+++	++
	IgG_1	+	-
	IgG_{2a}	++++	-
	IgG_{2b}	++	-
Rabbit	IgG_{2c}	++	+
	IgG	+++	++++
Sheep	IgG	++	-
Goat	IgG	++	-

[1] Akerström, B., Brodin, T. H. O. M. A. S., Reis, K. A. T. H. L. E. E. N., & Björck, L. A. R. S. (1985). Protein G: a powerful tool for binding and detection of monoclonal and polyclonal antibodies. Journal of immunology (Baltimore, Md.: 1950), 135(4), 2589-2592.

[2] Björck, L., & Kronvall, G. (1984). Purification and some properties of streptococcal protein G, a novel IgG-binding reagent. Journal of Immunology (Baltimore, Md.: 1950), 133(2), 969-974.