Qty: 50 ml

Protein A-Sepharose® 4B Conjugate

Catalog No. 10-1042

Lot No.

PROTEIN A-SEPHAROSE® 4B CONJUGATE

FORM

This product is supplied as a 50% suspension (25 ml Protein A-Sepharose® 4B + 25 ml PBS) in 10 mM phosphate-buffered saline, pH 7.4, containing 0.1% Proclin as a preservative. The product is prepared by covalently coupling highly purified (>98% by SDS-PAGE) *Staph. Aureus* Cowan strain 1 Protein A to Sepharose® 4B.

DESCRIPTION:

Protein A and Protein G bind specifically to Fc regions of many mammalian immunoglobulins. Protein A and Protein G conjugates are commonly used as affinity adsorbents to purify immunoglobulins (antibodies) and immunoglobulin subtypes from serum, hybridoma ascites fluids, tissue culture supernatants and other biological fluids. These reagents are also commonly used to capture immune complexes generated in immunoprecipitation experiments. Because Protein A and Protein G vary widely in their abilities to bind individual immunoglobulins, consult the table below before proceeding with your application. It should be noted that the Fc binding characteristics of naturally produced Protein A and Protein G are identical to their recombinant counterparts. However, also note that Invitrogen's recombinant Protein G products are deleted for two albumin binding sites present in the wild type molecule. For certain procedures, it may be advantageous to use a light chain binding reagent (e.g. Invitrogen's Kappalock™ products) instead of Protein A or Protein G.

SPECIFICATIONS

Protein-A/Sepharose® ratio: ~2.7 mg Protein A per ml beads
Binding capacity: ~22 mg Rabbit IgG per ml beads
Protein A Molecular Weight: 42 kDa (native)
Protein A Ig Binding Sites: 4 per molecule
Albumin Binding Sites/molecule: none

Binding Characteristics of Immunoglobulins to Protein A and Protein G

Species	*Protein A*	*Protein G*	*Species*	*Protein A*	*Protein G*	*Species*	*Protein A*	*Protein G*
Cat IgG	+++	+	Human IgA2	+	-	Mouse IgG2b	+++	+++
Chicken IgG	-	-	Human IgD	-	-	Mouse IgG3	++	+++
Cow IgG	+	+++	Human IgE	++	-	Mouse IgM	-	-
Cow IgG1	+	+++	Human IgG	+++	+++	Rat IgG	+	++
Cow IgG2	+++	+++	Human IgG1	+++	+++	Rat IgG1	-	+
Dog IgG	+++	+	Human IgG2	+++	+++	Rat IgG2a	-	+++
Goat IgG	+	++	Human IgG3	-	+++	Rat IgG2b	-	+
Goat IgG1	+	+++	Human IgG4	+++	+++	Rat IgG2c	++	++
Goat IgG2	+++	+++	Human IgM	+	-	Rabbit IgG	+++	+++
Guinea Pig IgG	+++	+	Monkey IgG	+++	+++	Sheep IgG	+	++
Hamster IgG	+	++	Pig IgG	+++	++	Sheep IgG1	+	++
Horse IgG	+	+++	Mouse IgG	++	++	Sheep IgG2	+++	+++
Human IgA	+	-	Mouse IgG1	+	++			
Human IgA1	+	-	Mouse IgG2a	+++	+++			

+++, ++, +, --: strong binding, moderate binding, weak binding, no binding, respectively.

PROCEDURES:
Recommended procedures for immunoglobulin affinity purification and immunoprecipitation using our Protein A and Protein G products are available on request from Invitrogen Technical Services by phone at (800) 955-6288 or by email at tech.Invitrogen.com. An excellent source for information on antibodies in general and on nearly all routine laboratory procedures involving antibodies is Antibodies, A Laboratory Manual, Ed Harlow and David Lane, Eds., Cold Spring Harbor Laboratory (1999).

STORAGE:
Store at 2-8°C. **Do Not Freeze.** Freezing this product will damage or destroy its performance.

SELECTED INVITROGEN PRODUCT REFERENCES
Immunoprecipitation
1. Dikic I, et al. *Nature* 383(6600):547-550, 1996.
2. Streuli CH, et al. *Cell* 69:927-938, 1995.
3. Goi K, et al. *Cancer Research* 57(10):1895-1902, 1997.
4. Elliott JG, et al. *J Biol Chem* 272(21):13849-13855, 1997.
5. Inohara H, et al. *Cancer Research* 56:4530-4534, 1996.
6. McConnell KR, et al. *J Immunol* 158:2083-2089, 1997.
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7. Sakuai T, et al. *J Cell Biol* 136:907-918, 1997.
8. Lasky L, et al. *Cell* 69:927-938, 1992.

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