

Datasheet for PA50-00-0005**Sepharose™ Protein A****Overview**

Description:	Sepharose™ Protein A - PA50-00-0005
Item No.:	PA50-00-0005
Size:	5 mL
Applications:	ChIP, IP, WB
Origin:	Staphylococcus aureus

Product Details

Background:	Sepharose™ Protein A is a suspension of beads conjugated to native protein A derived from Staphylococcus aureus. When evenly dispersed approximately 10 mL of suspension is equal to 5.0 cc of settled beads of Sepharose™ 4 Fast Flow (highly cross linked, 4% agarose derivative). The bead size is approximately 45-165 µm when swollen. Approximately 6.0 mg of Protein A is bound per cc of drained beads. Each cc of drained beads will bind approximately 35 mg Human IgG. The exclusion limit (Mr) of the beads is 3×10^7 . The maximum linear flow rate is approximately 1300 cm/hr. This product shows long term stability within pH range of 3 to 9 and short term stability within pH range of 2 to 10.
Synonyms:	ProA, Staphylococcus A protein, Sepharose Protein A
Species of Origin:	Staphylococcus aureus
Conjugate:	Sepharose™
Type:	Native Protein

Target Details

Purity/Specificity:	Protein A has a high affinity for the Fc regions of IgG molecules from a variety of species, including human, mouse, rat IgG2c, cow IgG2c, goat IgG2, sheep IgG2, and rabbit. Immobilization of protein A creates an affinity resin that can be used to isolate IgG fractions from crude serum, ascites fluid or hybridoma supernatants/dilute cell cultures. High capacity and high flow rate fractionation is applicable to both laboratory and scale-up processes. Sepharose™ Protein A can be used for immunoprecipitation and purification of monoclonal antibodies.
Relevant Links:	• UniProtKB - P38507

- [Sephacel-Protin-A-Protocol-PA50-00-0005](#)
- [PA50-00 SDS](#)

Application Details

Suggested Applications:	ChIP, IP, WB (Based on references)
Application Note:	Protein A resin may also be used to pull down antibody:antigen complexes in immunoprecipitation experiments. This product is suitable for use at 20 µL per immunoprecipitation reaction.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
IP:	User Optimized
Other:	Bead size 45-165 µm in size when swollen. ~35 mg Human IgG bound per cc of drained beads.

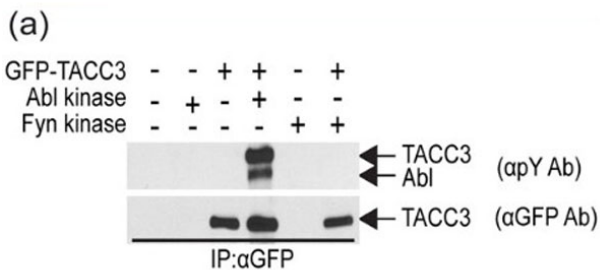
Formulation

Physical State:	Suspension of agarose beads
Concentration:	6.0 mg/cc drained sepharose gel (~1 cc settled sepharose beads per 2 ml suspension)
Buffer:	20% (v/v) Ethanol
Preservative:	None
Stabilizer:	None

Shipping & Handling

Shipping Condition:	Wet Ice
Storage Condition:	Store SEPHAROSE PROTEIN A at 4° C prior to opening. DO NOT FREEZE.
Expiration:	Expiration date is one (1) year from date of receipt.

Images

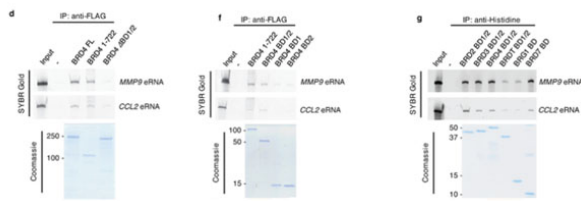


Immunoprecipitation

Abelson kinase induces phosphorylation of TACC3. (a) Western blot performed with phospho-tyrosine specific antibody showing Abelson-induced tyrosine phosphorylation of full-length TACC3 (lane 4). Phosphorylation signal is not present when TACC3 is expressed alone (lane 2) or with another tyrosine kinase Fyn (lane 6). Total protein was incubated with α-GFP and 20μL of a 50% slurry of sepharose Protein A (p/n PA50-00-0002) and Protein G resin prewashed with lysis buffer. FIGURE 1. PMID: 32543081.

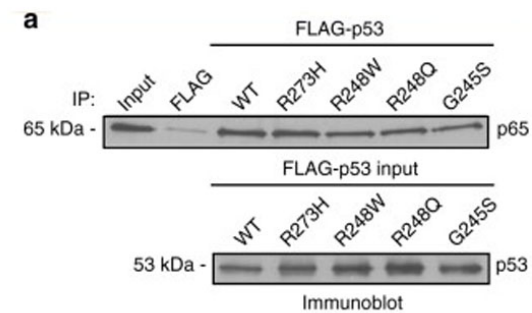
Immunoprecipitation

BRD4 directly interacts with eRNAs through its tandem bromodomains. d, f, In vitro pull-down of MMP9 and CCL2 eRNAs with the indicated FLAG-tagged BRD4 proteins and g, the His-tagged tandem BDs of BRD2, BRD3, BRD4, and BRD7 and the single BDs of BRG1 and BRD7 as revealed by SYBR Gold staining and SDS-PAGE/Coomassie staining analyses of the purified proteins. Cleared lysates were incubated with indicated antibodies followed by an additional incubation with Protein A Sepharose (p/n PA50-00-0002). Fig 3. PMID: 30076409.



Immunoprecipitation

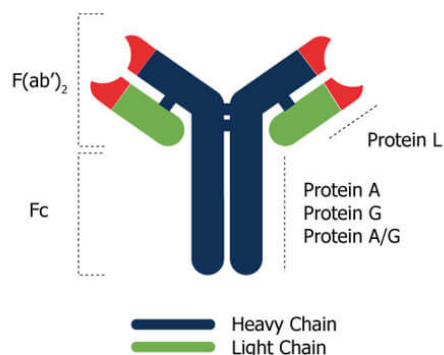
Mutp53 and NFκB interact and impact each other's binding at enhancers. a Purified wild-type and mutp53 proteins bind directly to purified NFκB/p65 as revealed by immunoblot analysis with an antibody that recognizes p65. Input samples for the p53 proteins were also analyzed by immunoblot analysis with an antibody that recognizes both wild-type and mutp53. Three independent interaction assays were performed. Fig. 3. PMID: 28963538.





Bottle

Sepharose™ Protein A is a suspension of beads conjugated to a fusion protein containing binding domains from protein A from *Staphylococcus aureus*.



Figure

Antibody-binding protein specificity for Protein A, Protein G, and Protein A/G which demonstrate binding specificity to IgG immunoglobulin through an interaction in the Fc region of the heavy chain domain. Protein A and G each show some preferences to certain types of antibody subclasses, and proper reagent selection may be required, Protein A/G offers the widest range of antibody subclass binding. Another immunoglobulin binding protein is Protein L which binds to the kappa light chain of the F(ab')₂ region.

References

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Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.