

Datasheet for 100-4197**Avidin Antibody****Overview**

Description:	Anti-AVIDIN (RABBIT) Antibody - 100-4197
Item No.:	100-4197
Size:	2 mL
Applications:	Other
Reactivity:	Avidin
Host Species:	Rabbit

Product Details

Background:	Avidin is a glycoprotein with a molecular weight of approximately 62.4 kDa. Avidin is a biotin binding protein that shows high sequence homology in birds, reptiles and amphibians. Hen egg white avidin is a tetrameric protein composed of four identical subunits, each with the ability to bind biotin with high affinity and specificity ($K_d \sim 10^{15}$ M). In biotechnology, the functional consequence of tetrameric biotin binding is signal amplification. Biotin-avidin bridging is a great way to increase signal strength while maintaining specificity. The sequence of avidin only shows 30% homology with streptavidin, and anti-avidin and anti-streptavidin antibodies are not immunologically cross reactive.
Synonyms:	rabbit Anti-Avidin antibody, anti-Avidin Egg White, rabbit Anti Avidin, Egg White
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	Antiserum

Target Details

Reactivity:	Avidin
Immunogen Type:	Native Protein
Immunogen:	Avidin (Hen Egg White)

Purity/Specificity: This product was prepared from monospecific antiserum by a delipidation and defibrination. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-rabbit serum, purified and partially purified Avidin [Hen Egg White]. Cross reactivity against Avidin from other tissues and species may occur but have not been specifically determined.

Relevant Links:

- [UniProtKB - P02701](#)

Application Details

Suggested Applications: Other (Based on references)

Application Note: Suitable for immunoblotting (western or dot blot), ELISA, immunoprecipitation and most immunological methods requiring high titer and specificity.

Assay Dilutions: All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.

ELISA: 1:20,000 - 1:100,000

IHC: 1:1,000 - 1:5,000

WB: 1:2,000 - 1:10,000

Formulation

Physical State: Lyophilized

Concentration: 80 mg/mL by Refractometry

Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Preservative: None

Stabilizer: None

Reconstitution Volume: 2.0 mL

Reconstitution Buffer: Restore with deionized water (or equivalent)

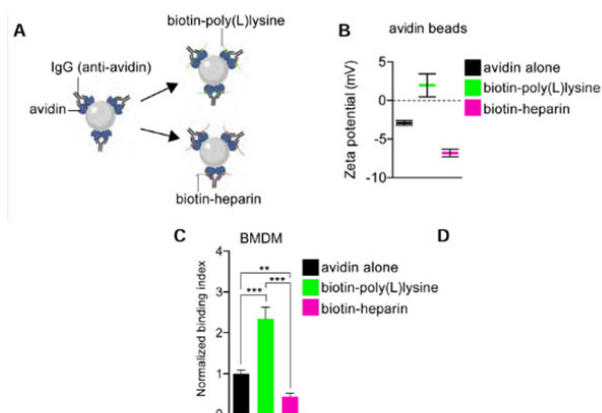
Shipping & Handling

Shipping Condition: Ambient

Storage Condition: Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Expiration: Expiration date is one (1) year from date of receipt.

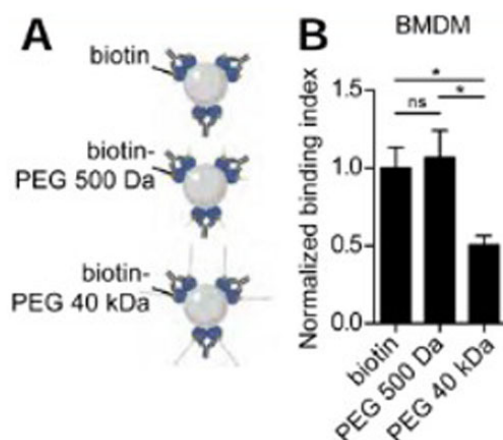
Images



Figure

Charge selectivity in phagocytic target binding by macrophages.

A-B) Diagrammatic representation of experimental setup (A), where polystyrene microspheres were coated with avidin followed by anti-avidin antibodies and biotinylated polymers. B) Zeta potential measurements of avidin beads and those containing biotinylated poly(L)lysine or heparin. Bars represent means $\pm$ SEM. C) Normalized binding index of indicated particles by BMDM. Fig 4. PMID: 33096038.



Figure

The glycocalyx of phagocytic targets constitutes a mechanical barrier to ligand recognition and engagement by phagocytic receptors.

A) Diagrammatic representation of experimental model. B) Avidin beads opsonized with anti-avidin antibodies and containing biotin-PEG of indicated sizes were incubated with BMDM for 15 min. Normalized binding index is from >5 fields of 5–10 cells, $n=3$. Bars represent means $\pm$ SEM. Fig 5. PMID: 33096038.

References

- Hale CA et al. Recruitment of the TolA Protein to Cell Constriction Sites in Escherichia coli via Three Separate Mechanisms, and a Critical Role for FtsWI Activity in Recruitment of both TolA and TolQ. *J Bacteriol.* (2022)
- Imbert PRC et al. An acquired and endogenous glycocalyx forms a bidirectional “Don’t Eat” and “Don’t Eat Me” barrier to phagocytosis. *Curr Biol.* (2021)

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.