Order online now!

www.rockland.com
tech@rockland.com
+1 484.791.3823

Datasheet for 200-401-072

Lysozyme Antibody

Overview

Description:	Anti-Lysozyme (Hen Egg White) (RABBIT) Antibody - 200-401-072
Item No.:	200-401-072
Size:	100 µg
Applications:	Dot Blot, ELISA, WB, FC
Reactivity:	Chicken
Host Species:	Rabbit

Product Details

Background:	Lysozyme is a relatively small (129 AA) secretory enzyme that catalyzes the hydrolysis of β-1,4 glucosidic linkages between N-acetylmuramic acid (NAM) and N-acetylglucosamine (NAG) comprising the cell walls of bacteria and to a lesser degree chitin oligomers. Lysozyme is common in animals and plants. In birds, lysozyme is also an exceptionally abundant protein in egg whites. Its biological function in fowl eggs is unclear. Hen egg white lysozyme ''c'' is the most commonly studied form and source of the enzyme. Lysozyme from domestic goose is designated lysozyme ''g''. Lysozyme is also found in vertebrates, including human, mostly in secretions and certain tissues, such as saliva, tears, milk, cervical mucus, leucocytes, kidneys and urine, where it probably serves as an anti-bacterial agent by digesting and weakening the rigid bacterial cell wall, thereby rendering the bacteria susceptible to osmotic lysis. Plant lysozyme is found in ficus and papaya latex, and is chemically distinct from the egg white enzyme.
Synonyms:	rabbit anti-Lysozyme Antibody, 1 4 beta n acetylmuramidase c antibody, EC 3.2.1.17 antibody, LYZ antibody, Lysozyme C antibody, Lysozyme C precursor antibody, LZM antibody, Hen Egg White
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	LYZ
Reactivity:	Chicken

Immunogen Type:	Native Protein
Immunogen:	This purified antibody was prepared from whole rabbit serum produced by repeated immunizations with full length protein corresponding to amino acids 1-129 of Hen Egg White Lysozyme.
Purity/Specificity:	This purified antibody is directed against lysozyme from hen egg white protein. This product is an IgG fraction antibody purified from monospecific antiserum by a multi-step process, which includes delipidation, salt fractionation and ion exchange chromatography followed by extensive dialysis against the buffer stated above. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Rabbit Serum as well as purified and partially purified Lysozyme (Hen Egg White). A BLAST analysis was used to suggest that this antibody would react with all forms of lysozyme from chicken, including precursor as well as A and B chains. Chains designated as M, L, F, C, Y and D also show 100% sequence homology. Lysozyme from quail and pheasant are also reported to be 100% identical with HEW lysozyme. Cross reactivity against lysozyme from other sources may occur but has not been specifically determined.
Relevant Links:	• UniProtKB - P00698 • NCBI - NP_990612.1 • GeneID - 396218 • 200-401-072 SDS

Application Details

Tested Applications:	Dot Blot, ELISA, WB
Suggested Applications:	FC (Based on references)
Application Note:	Anti-Lysozyme Hen Egg White purified antibody has been tested for use in ELISA and western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band at ~14 kDa in size corresponding to lysozyme by western blotting in the appropriate cell lysate or extract.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:25,000
IHC:	1:500 - 1:2,000
IP:	1:100
WB:	1:500 - 1:2,000

Formulation

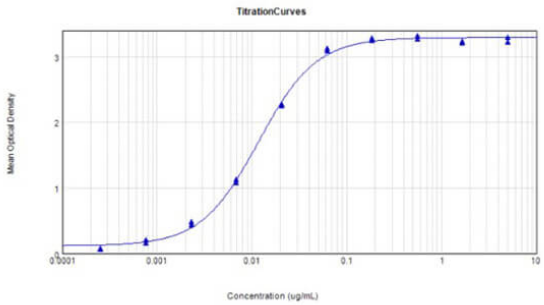
Physical State:	Liquid (sterile filtered)

Concentration:	1.0 mg/ml by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

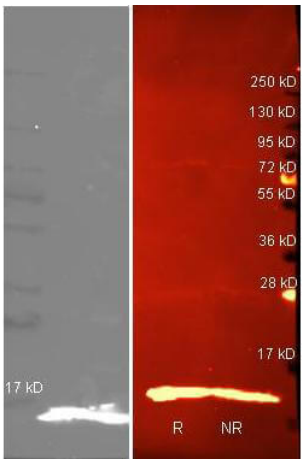
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. 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.

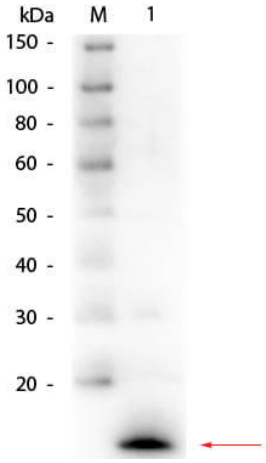
Images



ELISA
ELISA Results of Rabbit Anti-Lysosome Antibody. Each well was coated in duplicate with 1.0 µg of Lysosome. The working dilution is 1:5000. The starting dilution of antibody was 5µg/ml and the X-axis represents the Log10 of a 3-fold dilution. This titration is a 4-parameter curve fit where the IC50 is defined as the titer of the antibody. Assay performed using HRP Conjugate Stabilizer (p/n MB-076), Goat Anti-Rabbit IgG HRP conjugated (p/n 611-103-122) and TMB substrate (p/n TMBE-1000).



Western Blot
Western Blot of Rabbit anti-Lysozyme antibody. (Left Blot-grey) Lane 1: purified Lysozyme reduced. Lane 2: purified Lysozyme non-reduced. Load: 0.5 ug per lane. Primary antibody: Biotin Conjugated Rabbit anti Lysozyme antibody at 1:5000 for overnight at 4°C. Secondary antibody: Dylight 488 conjugated Streptavidin at 1:5,000 with Atto 425 conjugated goat anti rabbit secondary antibody at 1:10,000 for 1.5 hrs at RT. (Right Blot-red) Lane 1: purified Lysozyme reduced. Lane 2: purified Lysozyme non-reduced. Secondary antibody: Dylight 488 conjugated Streptavidin at 1:5,000 with Dylight 549 conjugated secondary antibody at 1:10,000 for 1.5 hrs at RT. Block: MB-070 overnight at 4°C. Predicted/Observed size: 16kDa for Lysozyme. Other band (s): none.



Western Blot
Western Blot of Rabbit anti-Lysozyme (Hen Egg White) Antibody. Lane 1: Lysozyme (Hen Egg White). Load: 50 ng per lane. Primary antibody: Rabbit anti-Lysozyme (Hen Egg White) Antibody at 1:1,000 overnight at 4°C. Secondary antibody: HRP rabbit secondary antibody at 1:40,000 for 30 min at RT. Block: MB-070 for 30 min at RT. Predicted/Observed size: ~14-16 kDa for Lysozyme (Hen Egg White).

References

- Hlushko R et al. Macromolecular dimensions of a synthetic polyelectrolyte as a factor in its interactions with protein and cells: desirability for longer chains. *J Mater Chem B.* (2026)
- Ngo TH et al. Impact of Glycine Supplementation on Growth and Hematological Indices in Florida Pompano (Trachinotus carolinus). *Aquac Nutr.* (2025)
- Marin A et al. Immunopotentiating Polyphosphazene Delivery Systems: Supramolecular Self-Assembly and Stability in the Presence of Plasma Proteins. *Mol Pharm.* (2024)
- Wise AL et al. Coinfection of channel catfish (Ictalurus punctatus) with virulent Aeromonas hydrophila and Flavobacterium covae exacerbates mortality. *J Fish Dis.* (2023)
- Klaska IP et al. Targeted delivery of autoantigen to dendritic cells prevents development of spontaneous uveitis. *Front Immunol.* (2023)
- Lueckheide M et al. Monitoring Protein Complexation with Polyphosphazene Polyelectrolyte Using Automated Dynamic Light Scattering Titration and Asymmetric Flow Field Flow Fractionation and Protein Recognition Immunoassay. *ACS Polym Au.* (2023)
- Liu YH et al. Partial retinal photoreceptor loss in a transgenic mouse model associated with reduced levels of interphotoreceptor retinol binding protein (IRBP, RBP3). *Exp Eye Res.* (2018)
- Mendez IZR et al. Potentiation of the immune response to non-adsorbed antigens by aluminum-containing adjuvants. *Vaccine.* (2007)
- Eric H Ekland et al. Requirements for follicular exclusion and competitive elimination of autoantigen-binding B cells. *J Immunol .* (2004)
- Pleschberger M et al. Generation of a functional monomolecular protein lattice consisting of an s-layer fusion protein comprising the variable domain of a camel heavy chain antibody. *Bioconjug Chem.* (2003)

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.