## **Product Datasheet**

# Rhodopsin Antibody (4D2) NBP2-59690-100ug

Unit Size: 100 ug

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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## NBP2-59690-100ug

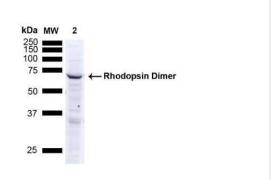
Rhodopsin Antibody (4D2)	
Product Information	
Unit Size	100 ug
Concentration	1 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	4D2
Preservative	0.09% Sodium Azide
Isotype	IgG1
Purity	Protein G purified
Buffer	PBS (pH 7.4), 50% Glycerol
Target Molecular Weight	40 kDa
Product Description	
Host	Mouse
Gene ID	6010
Gene Symbol	RHO
Species	Amphibian, Avian, Fish, Mammal, Zebrafish
Reactivity Notes	Extinct Spiny Shark (Acanthodes bridgei). Zebrafish reactivity reported from a verified customer review.
Specificity/Sensitivity	Binds specifically to the N-terminus of Rhodopsin. Does not detect Rhodopsin in invertebrates.
Immunogen	Bovine Rhodopsin
Product Application Details	
Applications	Western Blot, ELISA, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunoprecipitation
Recommended Dilutions	Western Blot 1:1000, ELISA, Immunohistochemistry 1:1000, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation, Immunohistochemistry-Frozen
Application Notes	1 ug/mL of this antibody was sufficient for detection of rhodopsin in 10 ug of rat eye lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody. Rhodopsin antibody validated for IHC-Fr from a verified customer review.



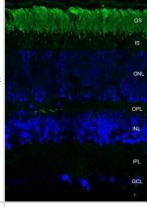
verified customer review.

#### **Images**

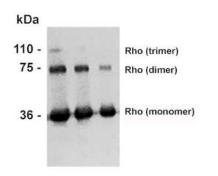
Western Blot: Rhodopsin Antibody (4D2) [NBP2-59690] - Western Blot analysis of Human A549 cells showing detection of ~38.9kDa Rhodopsin protein using Mouse Anti-Rhodopsin Monoclonal Antibody, Clone 4D2 (NBP2-59690). Lane 1: MW ladder. Lane 2: Human A549 Cells 15 ug). Load: 15 ug. Block: 5% Skim Milk Powder in TBST. Primary Antibody: Mouse Anti-Rhodopsin Monoclonal Antibody (NBP2-59690) at 1:1000 for 2.5 hours at RT with shaking . Secondary Antibody: Goat anti-mouse IgG:HRP at 1:1000 for 1 hour at RT with shaking . Color Development: Chemiluminescent for HRP (Moss) for 5 min in RT. Predicted/Observed Size: ~38.9kDa. Other Band(s): Band appears at ~75 kDa indicating detection of the Rhodopsin dimer.



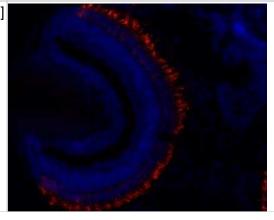
Immunohistochemistry: Rhodopsin Antibody (4D2) [NBP2-59690] - Immunohistochemistry analysis using Mouse Anti-Rhodopsin Monoclonal Antibody, Clone 4D2 (NBP2-59690). Tissue: retina. Species: Mouse. Primary Antibody: Mouse Anti-Rhodopsin Monoclonal Antibody (NBP2-59690) at 1:1000. Secondary Antibody: FITC Goat Anti-Mouse (green). Counterstain: DAPI (blue) nuclear stain. Localization: Staining of photoreceptor outer segment (OS). Other layers of the retina: IS inner segment; ONL outer nuclear layer; OPL outer plexiform layer; INL inner nuclear layer; IPL inner plexiform layer; GCL ganglion cell layer..



Western Blot: Rhodopsin Antibody (4D2) [NBP2-59690] - Western Blot analysis of Bovine photoreceptor membranes showing detection of Rhodopsin protein using Mouse Anti-Rhodopsin Monoclonal Antibody, Clone 4D2 (NBP2-59690). Lane 1: MW ladder. Lane 2: 10 ug. Lane 3: 5 ug. Lane 4: 2.5 ug.. Primary Antibody: Mouse Anti-Rhodopsin Monoclonal Antibody (NBP2-59690) at 1:1000.



Immunohistochemistry-Frozen: Rhodopsin Antibody (4D2) [NBP2-59690] - Zebrafish retina (outer nuclear layer). PFA and methanol fixed 7 um sections. Rhodopsin antibody O/N incubation at 1:500. IHC-Fr image submitted by a verified customer review.



#### **Publications**

Attia K Roles of PIKfyve in the Retina: A Zebrafish Study Thesis 2023-01-01

Stemerdink M, Broekman S, Peters T et al. Generation and Characterization of a Zebrafish Model for ADGRV1-Associated Retinal Dysfunction Using CRISPR/Cas9 Genome Editing Technology Cells 2023-06-10 [PMID: 37371069] (Zebrafish)

Schellens R, Broekman S, Peters T et al. A protein domain-oriented approach to expand the opportunities of therapeutic exon skipping for USH2A-associated retinitis pigmentosa Molecular Therapy - Nucleic Acids 2023-05-01 [PMID: 37313440] (IHC-Fr, Zebrafish)

Reurink J, de Vrieze E, Li CHZ et al. Scrutinizing pathogenicity of the USH2A c.2276G > T; p.(Cys759Phe) variant NPJ genomic medicine 2022-06-07 [PMID: 35672333] (IF/IHC, Zebrafish)

Kamel, SM;Broekman, S;Tessadori, F;van Wijk, E;Bakkers, J; The zebrafish cohesin protein Sgo1 is required for cardiac function and eye development Developmental dynamics: an official publication of the American Association of Anatomists [PMID: 35275424] (Human)

Petersen ERB, Olsen DA, Christensen H et al. Rhodopsin in plasma from patients with diabetic retinopathy - development and validation of digital ELISA by Single Molecule Array (Simoa) technology. J. Immunol. Methods. 2017-04-05 [PMID: 28390926] (ELISA)





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## Products Related to NBP2-59690-100ug

HAF007 Goat anti-Mouse IgG Secondary Antibody [HRP]

NB720-B Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]

NBP1-97005-0.5mg Mouse IgG1 Isotype Control (MG1)

NBP2-55553PEP Rhodopsin Recombinant Protein Antigen

#### Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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