

# Product Datasheet

## Rhodopsin Antibody (B630) - BSA Free NBP2-25160

Unit Size: 0.1 ml

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

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### Publications: 11

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**NBP2-25160**

Rhodopsin Antibody (B630) - BSA Free

Product Information	
Unit Size	0.1 ml
Concentration	1 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	B630
Preservative	5mM Sodium Azide
Isotype	IgG1
Purity	Protein G purified
Buffer	50% PBS, 50% glycerol
Target Molecular Weight	35 kDa

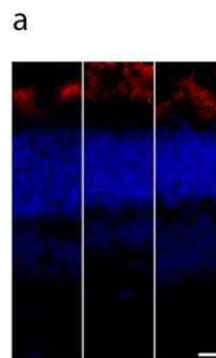
Product Description	
Description	Novus Biologicals Mouse Rhodopsin Antibody (B630) - BSA Free (NBP2-25160) is a monoclonal antibody validated for use in IHC, WB and ICC/IF. Anti-Rhodopsin Antibody: Cited in 9 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Mouse
Gene ID	6010
Gene Symbol	RHO
Species	Human, Mouse, Rat, Porcine, Bovine, Canine, Equine
Reactivity Notes	Canine reactivity reported in scientific literature (PMID: 30889179).
Immunogen	Purified rhodopsin from bovine retina.

Product Application Details	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry
Recommended Dilutions	Western Blot 1:5000, Immunohistochemistry 1:1000, Immunocytochemistry/ Immunofluorescence 1:1000
Application Notes	This Rhodopsin (B630) antibody is useful for Immunocytochemistry/Immunofluorescence, Immunohistochemistry, and Western Blot, where a band can be seen at ~35 kDa.

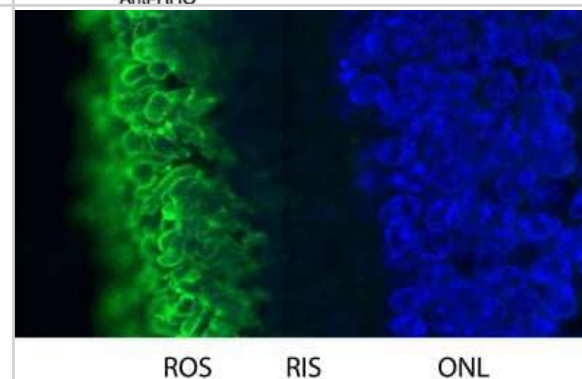
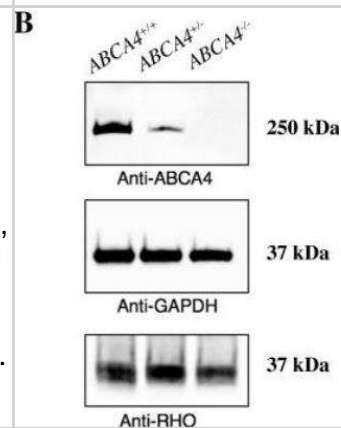


## Images

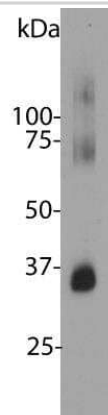
**Immunohistochemistry: Rhodopsin Antibody (B630) [NBP2-25160]** - Rhodopsin expression and the prevalence of rod photoreceptors in the canine retina. (A) Fluorescence micrographs showing rhodopsin expression (red) in the ABCA4<sup>+/+</sup> (left), ABCA4<sup>+/-</sup> (middle), and ABCA4<sup>-/-</sup> (right) rod outer segments. Scale bar = 10  $\mu$ m. Image collected and cropped by CiteAb from the following publication ([doi.org/10.1371/journal.pgen.1007873](https://doi.org/10.1371/journal.pgen.1007873)) licensed under a CC-BY license.



**Western Blot: Rhodopsin Antibody (B630) [NBP2-25160]** - Western blot analyses of ABCA4 (above), GAPDH (middle), and RHO (below) protein levels in retinal tissue of dogs with the three different genotypes. Image collected and cropped by CiteAb from the following publication. 50  $\mu$ g of protein samples were resolved by SDS-PAGE, transferred to nitrocellulose membrane, and immunoblotted with the following primary antibodies: ABCA4 (NBP1-30032, 1:1000) and Rhodopsin (NBP2-25160, 1:5000), followed by Anti-Mouse IgG horseradish peroxidase-conjugated secondary antibody (R&D Systems, HAF007, 1:5000). Image collected and cropped by CiteAb from the following publication ([doi.org/10.1371/journal.pgen.1007873](https://doi.org/10.1371/journal.pgen.1007873)) licensed under a CC-BY license.



**Western Blot: Rhodopsin Antibody (B630) [NBP2-25160]** - Blot of bovine retinal extracts. The antibody stains a band corresponding to retinal Rhodopsin at about 35kDa. Bands about 70 kDa and 140 kDa are aggregated forms of Rhodopsin. Note, due to the highly hydrophobic nature of Rhodopsin, it is important to avoid boiling samples containing this protein in SDS-PAGE sample buffer, as this will result in even more extensive aggregation of the Rhodopsin protein and appearance of more of this high molecular weight material.



## Publications

Chen C, Liu Q, Tang C et al. ZC3H11A mutations cause high myopia by triggering PI3K-AKT and NF- $\kappa$ B-mediated signaling pathway in humans and mice *eLife* 2025-08-27 [PMID: 40864167]

Li M, Xu J, Wang Y et al. Astragaloside A Protects Against Photoreceptor Degeneration in Part Through Suppressing Oxidative Stress and DNA Damage-Induced Necroptosis and Inflammation in the Retina *Journal of Inflammation Research* 2022-05-20 [PMID: 35645574] (Western Blot, Immunocytochemistry/ Immunofluorescence, Canine)

Chen C, Rong Y, Zhuang Y et al. RNA-Seq Analysis Reveals an Essential Role of the cGMP-PKG-MAPK Pathways in Retinal Degeneration Caused by Cep250 Deficiency *International Journal of Molecular Sciences* 2023-05-16 [PMID: 37240188] (Western Blot, Immunocytochemistry/ Immunofluorescence, Canine)

Huang M, Chow CH, Gurdita A et Al. SNAP-25, but not SNAP-23, is essential for photoreceptor development, survival, and function in mice *Commun Biol* 2024-01-05 [PMID: 38182732]

Saumil Sethna, Patrick A. Scott, Arnaud P. J. Giese, Todd Duncan, Xiaoying Jian, Sheikh Riazuddin, Paul A. Randazzo, T. Michael Redmond, Steven L. Bernstein, Saima Riazuddin, Zubair M. Ahmed CIB2 regulates mTORC1 signaling and is essential for autophagy and visual function *Nature Communications* 2021-06-23 [PMID: 34162842]

Chen C, Liu Q, Rong Y et al. ZC3H11A mutations cause high myopia by triggering PI3K-AKT and NF- $\kappa$ B mediated inflammatory reactions in humans and mice *bioRxiv* 2023-08-30 (IHC, Mouse)

Vargas JA, Finnemann SC Differences in Diurnal Rhythm of Rod Outer Segment Renewal between 129T2/SvEmsJ and C57BL/6J Mice *International journal of molecular sciences* 2022-08-22 [PMID: 36012733] (IHC-WhMt, Mouse)

MAkelAinen S, Hellsand M, van der Heiden A et al. Deletion in the Bardet-Biedl Syndrome Gene TTC8 Results in a Syndromic Retinal Degeneration in Dogs *Genes (Basel)* 2020-09-23 [PMID: 32962042]

Mao Y, Finnemann SC Acute RhoA/Rho Kinase Inhibition Is Sufficient to Restore Phagocytic Capacity to Retinal Pigment Epithelium Lacking the Engulfment Receptor MerTK *Cells* 2021-07-29 [PMID: 34440696]

Bullock J, Polato F, Abu-Asab M et al. Degradation of Photoreceptor Outer Segments by the Retinal Pigment Epithelium Requires Pigment Epithelium-Derived Factor Receptor (PEDF-R) *Investigative ophthalmology & visual science* 2021-02-01 [PMID: 33605986] (WB, Human)

Makelainen, S;Godia, M;Hellsand, M;Viluma, A;Hahn, D;Makdoui, K;Zeiss, CJ;Mellersh, C;Ricketts, SL;Narfstrom, K;Hallbook, F;Ekestén, B;Andersson, G;Bergstrom, TF; An ABCA4 loss-of-function mutation causes a canine form of Stargardt disease *PLoS Genet.* 2019-03-01 [PMID: 30889179] (ICC/IF, WB, Canine)





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### **Products Related to NBP2-25160**

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NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB7539	Goat anti-Mouse IgG (H+L) Secondary Antibody [HRP]
NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)

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### **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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