

Product Datasheet

Opsin 1 (Medium Wave) Antibody NB110-74730

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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NB110-74730**Opsin 1 (Medium Wave) Antibody**

Product Information	
Unit Size	0.1 ml
Concentration	This product is unpurified. The exact concentration of antibody is not quantifiable.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Benzalkonium chloride
Reconstitution Instructions	Reconstitute in 0.1 ml of sterile water. Centrifuge to remove any insoluble material. Glycerol may be added (1:1) for additional stability. Please note the sample size is provided in reconstituted format.
Isotype	IgG
Purity	Unpurified
Buffer	Lyophilized from whole antisera

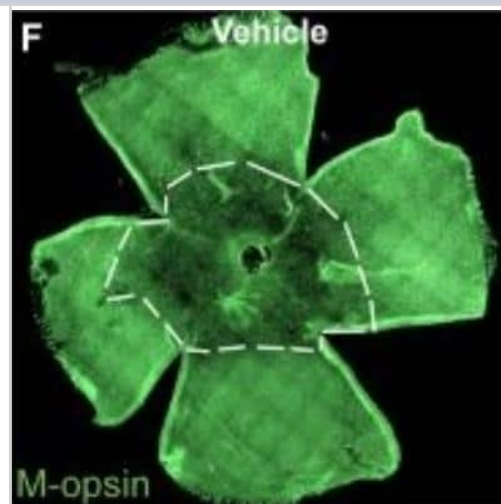
Product Description	
Host	Rabbit
Gene Symbol	OPN1MW
Species	Mouse, Rat
Reactivity Notes	Use in Mouse reported in scientific literature (PMID:33803057).
Immunogen	A synthetic peptide from mouse Opsin 1 (Medium Wave) conjugated to blue carrier protein was used as the antigen. The peptide is homologous in rat.

Product Application Details	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 1:250-1:500, Immunohistochemistry 1:250-1:500, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry-Paraffin 1:250-1:500, Immunohistochemistry-Frozen 1:250-1:500
Application Notes	Use in Immunocytochemistry/immunofluorescence reported in scientific literature (PMID: 30307502). Use in Immunohistochemistry-Frozen reported in scientific literature (PMID: 29162627).

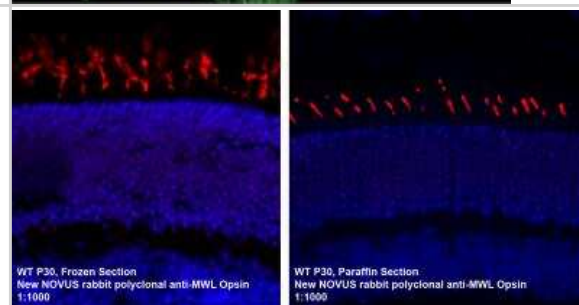


Images

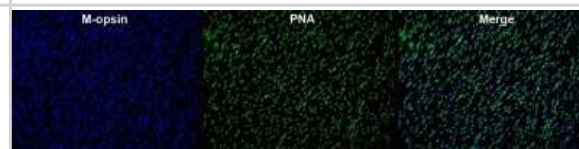
Immunohistochemistry: Opsin 1 (Medium Wave) Antibody [NB110-74730] - Protection of the retina against light damage in Grk1^{-/-} mice subjected to BLE (12.5 klux for 0.5 hours) 1 week prior to imaging. Drug combination (M+B+T) or vehicle was injected i.p. 0.5 hours prior to induction of light damage (replicates are presented in Table 2). Representative flat-mount retina image of typical M- (green) and S-cone (blue) populations in vehicle-treated mouse retinas 1 week after BLE. Dashed white lines show border between damaged and healthy site in cone population. M+B+T at a dose 10-1-0.5 mg/kg maintained cone population at ~95%, whereas ONL thickness (representative of rod population) with this dose was decreased by ~50%. M+B+T 50-5-2.5 mg/kg dose led to full protection in both rod and cone population. Image collected and cropped by CiteAb from the following publication (<http://iovs.arvojournals.org/article.aspx?doi=10.1167/iovs.19-26560>) licensed under a CC-BY license.



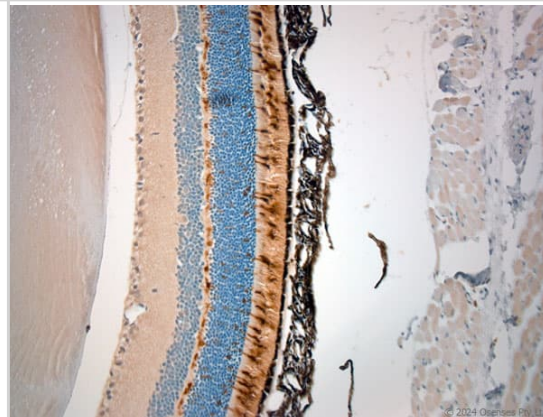
Immunohistochemistry-Paraffin: Opsin 1 (Medium Wave) Antibody [NB110-74730] - IF analysis of Opsin 1 in paraffin embedded and frozen mouse retina tissues. Image courtesy of product review submitted by Linda Vuong.



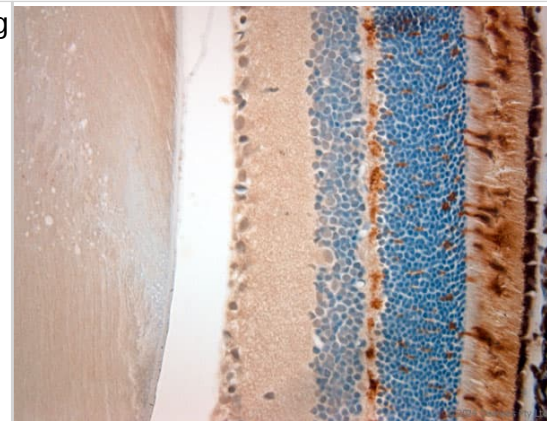
Immunohistochemistry: Opsin 1 (Medium Wave) Antibody [NB110-74730] - Retinal whole mount of BALB/c mouse stained against anti M-opsin secondary (AF647) antibody and peanut agglutinin (Fluorescein). This image was submitted via customer Review.



HC-P on paraffin sections of mouse eye. The animal was perfused using Autoperfuser at a pressure of 130 mmHg with 300 ml 4% FA before being processed for paraffin embedding. HIER: Tris-EDTA, pH 9 for 20 min using Thermo PT Module. Blocking: 0.2% LFDM in TBST filtered thru 0.2 μ m. Detection was done using Novolink HRP polymer from Leica following manufacturers instructions; DAB chromogen: Candela DAB chromogen from Osenses. Primary antibody: dilution 1: 500, incubated 30 min at RT using Autostainer. Sections were counterstained with Harris Hematoxylin.



IHC-P on paraffin sections of mouse eye. The animal was perfused using Autoperfuser at a pressure of 130 mmHg with 300 ml 4% FA before being processed for paraffin embedding. HIER: Tris-EDTA, pH 9 for 20 min using Thermo PT Module. Blocking: 0.2% LFDM in TBST filtered thru 0.2 μ m. Detection was done using Novolink HRP polymer from Leica following manufacturers instructions; DAB chromogen: Candela DAB chromogen from Osenses. Primary antibody: dilution 1: 500, incubated 30 min at RT using Autostainer. Sections were counterstained with Harris Hematoxylin.



Publications

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

Su J, She K, Song L et al. In vivo base editing rescues photoreceptors in a mouse model of retinitis pigmentosa Molecular Therapy - Nucleic Acids 2023-03-01 [PMID: 36910709] (WB, Mouse)

Chen B, Liou J, Wu J et al. Photoreceptor and vision protective effects of astragaloside IV in mice model with light-evoked retinal damage Biomedicine & Pharmacotherapy 2022-09-01 [PMID: 36076531] (IHC-P, Mouse)

Choi EH, Suh S, Foik AT et al. In vivo base editing rescues cone photoreceptors in a mouse model of early-onset inherited retinal degeneration Nature communications 2022-04-05 [PMID: 35383196] (IF/IHC, Mouse)

Wu J, Yang S, Ho Y et al. The Functional Vision Restorative Effect of Crocin via the BDNF-TrkB Pathway: An In Vivo Study Nutrients 2022-04-20 [PMID: 35565684] (IF/IHC, Mouse)

Miller LR, Tarantini S, NyUI-TOth A et al. Increased Susceptibility to Cerebral Microhemorrhages Is Associated With Imaging Signs of Microvascular Degeneration in the Retina in an Insulin-Like Growth Factor 1 Deficient Mouse Model of Accelerated Aging Frontiers in aging neuroscience 2022-03-09 [PMID: 35356301] (IHC-P, Mouse)

Chen Y, Huang Y, Wu P et al. The Functional Vision Protection Effect of Danshensu via Dopamine D1 Receptors: In Vivo Study Nutrients 2021-03-17 [PMID: 33803057] (IHC-P, Mouse)

Leinonen H, Pham NC, Boyd T et al. Homeostatic plasticity in the retina is associated with maintenance of night vision during retinal degenerative disease Elife 2020-09-22 [PMID: 32960171] (IF/IHC, Mouse)

Strayve D, Makia MM, Kakakhel M et al. ROM1 contributes to phenotypic heterogeneity in PRPH2-associated retinal disease Hum. Mol. Genet. 2020-07-27 [PMID: 32716032] (ICC/IF)

Chakraborty D, Strayve DG, Makia MS et al. Novel molecular mechanisms for Prph2-associated pattern dystrophy FASEB J. 2020-01-01 [PMID: 31914632] (WB, ICC/IF, Mouse)

Orban T, Leinonen H, Getter T et al. A Combination of G Protein-Coupled Receptor Modulators Protects Photoreceptors from Degeneration. J Pharmacol Exp Ther. 2019-01-31 [PMID: 29162627] (IHC-Fr, Mouse)

Pan M, Hu H, Wang R et al. JNK1 Induces Notch1 Expression to Regulate Genes Governing Photoreceptor Production Cells 2019-08-24 [PMID: 31450635] (IHC-P, Mouse)

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Products Related to NB110-74730

HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
NBP2-10678	Opsin 1 (Medium Wave) Overexpression Lysate

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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