

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

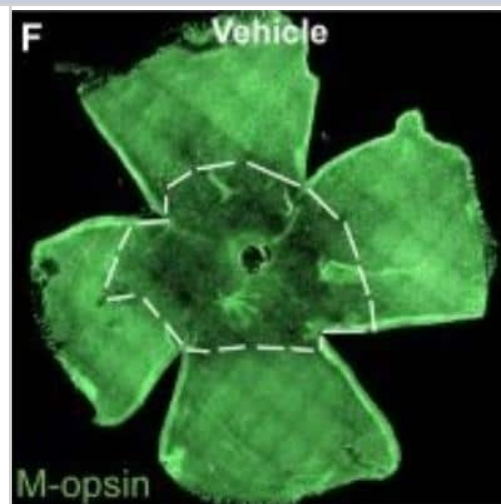
Product Description	
Description	Novus Biologicals Rabbit Opsin 1 (Medium Wave) Antibody (NB110-74730) is a polyclonal antibody validated for use in IHC, WB and ICC/IF. Anti-Opsin 1 (Medium Wave) Antibody: Cited in 16 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	2652
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, Immunohistochemistry-Paraffin, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen
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).

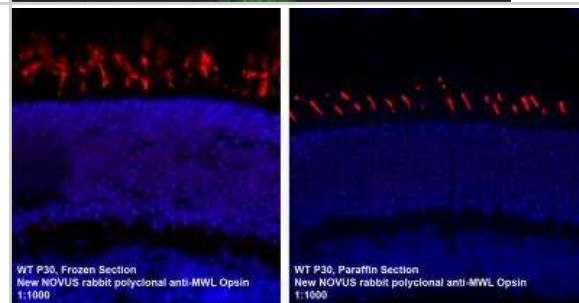


Images

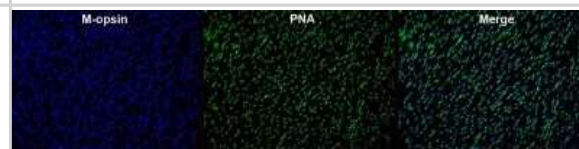
Immunohistochemistry: Opsin 1 (Medium Wave) Antibody [NB110-74730] - Protection of the retina against light damage in Grk1^{-/-} mice subjected to BLE (12.5 klux for 0.5 hours) 1 week prior to imaging. Drug combination (M+B+T) or vehicle was injected i.p. 0.5 hours prior to induction of light damage (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 (<https://iovs.arvojournals.org/article.aspx?doi=10.1167/iovs.19-26560>) licensed under a CC-BY license.



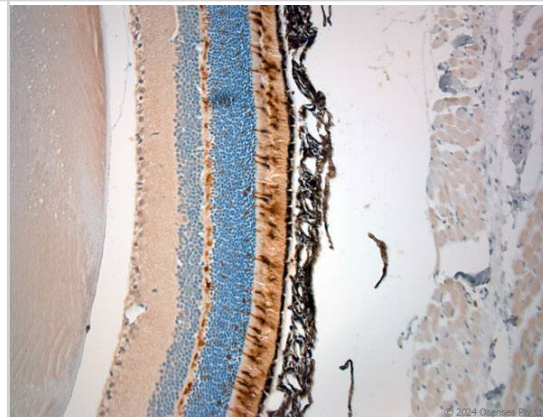
Immunohistochemistry-Paraffin: Opsin 1 (Medium Wave) Antibody [NB110-74730] - IF analysis of Opsin 1 in paraffin embedded and frozen mouse retina tissues. Image courtesy of product review submitted by Linda Vuong.



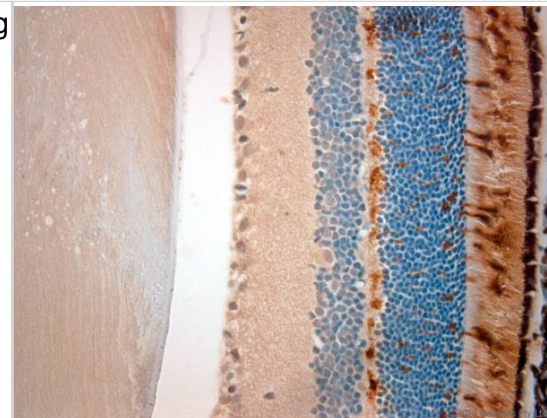
Immunohistochemistry: Opsin 1 (Medium Wave) Antibody [NB110-74730] - Retinal whole mount of BALB/c mouse stained against anti M-opsin secondary (AF647) antibody and peanut agglutinin (Fluorescein). This image was submitted via customer Review.



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

Bassetto M, Kolesnikov AV, Lewandowski D et Al. Dominant role for pigment epithelial CRALBP in supplying visual chromophore to photoreceptors Cell Rep 2024-06-27 [PMID: 38676924]

Huh CYL, Leinonen H, Nakayama T et Al. Retinoid therapy restores eye-specific cortical responses in adult mice with retinal degeneration Curr Biol 2022-10-27 [PMID: 36152631]

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)

More publications at <http://www.novusbio.com/NB110-74730>



Novus Biologicals USA

10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada

21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd

19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information

www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

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
210-TA-005	TNF-alpha [Unconjugated]

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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