Product Datasheet

ABCA4 Antibody (3F4) - Azide Free
NBP1-30032

Unit Size: 0.1 ml

Store at -20C. Avoid freeze-thaw cycles.

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NBP1-30032

ABCA4 Antibody (3F4) - Azide Free

## Product Information

Unit Size	0.1 ml
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	3F4
Preservative	No Preservative
Isotype	IgG1
Purity	Protein G purified
Buffer	10 mM HEPES (pH 7.5), 0.15 M NaCl, 0.1 mg/mL BSA, 50% Glycerol
Target Molecular Weight	220 kDa

Product Description

Host	Mouse
Gene ID	24
Gene Symbol	ABCA4
Species	Human, Mouse, Bovine, Canine, Feline, Xenopus
Reactivity Notes	Please note that this antibody is reactive to Mouse and derived from the same host, Mouse. Additional Mouse on Mouse blocking steps may be required for IHC and ICC experiments. Please contact Technical Support for more information. Canine reactivity reported in scientific literature (PMID: 30889179). Feline reactivity reported from a verified customer review.
Immunogen	Partially purified bovine 220-kDa disc rim protein. Accession # F1MWM0

Product Application Details

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Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Knockout Validated
Recommended Dilutions	Western Blot 1:1000, Immunohistochemistry 1:100, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry-Frozen 1:10 - 1:500, Knockout Validated
Application Notes	Although not confirmed, this product may be useful in Immunohistochemistry-Paraffin. Immunohistochemistry-Frozen was reported in scientific literature. Use in Immunocytochemistry/immunofluorescence reported in scientific literature (PMID: 30889179).

Images

Immunohistochemistry-Frozen: ABCA4 Antibody (3F4) [NBP1-30032] - IHC-Fr of normal feline retina with antibodies ABCA4 3F4 (red) and HCAR (green). ABCA4 antibody (1:1000) labels outer segments of photoreceptors and HCAR antibody labels cones. IHC-Fr image submitted by a verified customer review.
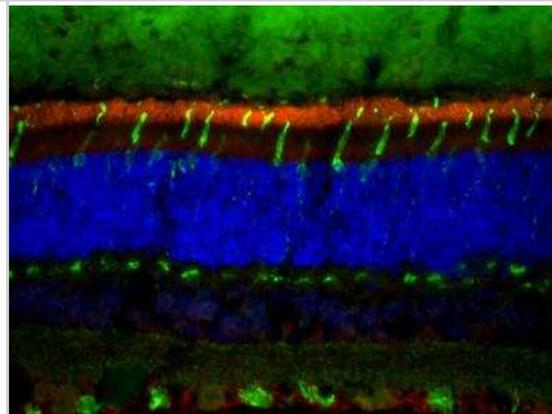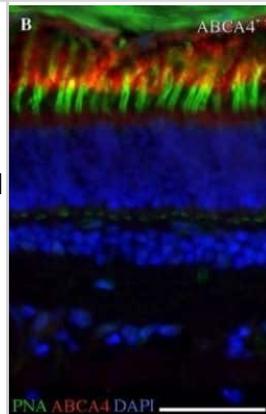

Immunohistochemistry: ABCA4 Antibody (3F4) [NBP1-30032] - staining of adult mouse retina showing specific immunolabeling of the ABCA4 protein. Photo courtesy of Mary Raven, University of California, Santa Barbara, CA.
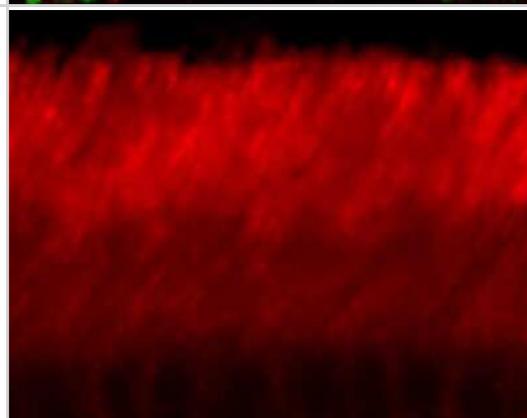
Immunohistochemistry: ABCA4 Antibody (3F4) [NBP1-30032] - Fluorescence histochemistry of ABCA4, cone photoreceptors, and autofluorescence in the canine retina. Fluorescence micrographs showing ABCA4 expression (red), FITC-conjugated peanut agglutinin (PNA, green), and DAPI nuclear staining (blue) in wild-type (ABCA4+/+) retina. PNA labels cone photoreceptors. Image collected and cropped by CiteAb from the following publication (https://dx.plos.org/10.1371/journal.pgen.1007873), licensed under a CC-BY license.
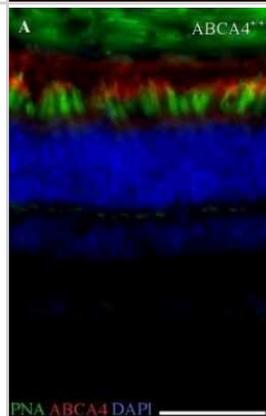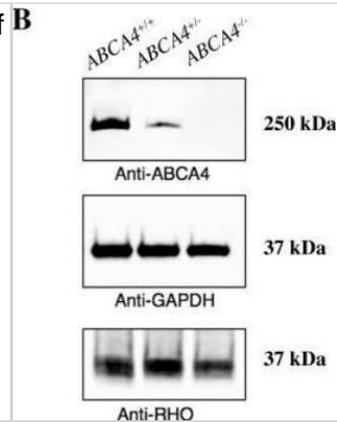

Immunohistochemistry: ABCA4 Antibody (3F4) [NBP1-30032] - Fluorescence histochemistry of ABCA4, cone photoreceptors, and autofluorescence in the canine retina. Fluorescence micrographs showing ABCA4 expression (red), FITC-conjugated peanut agglutinin (PNA, green), and DAPI nuclear staining (blue) in heterozygous (ABCA4+/-) retina. PNA labels cone photoreceptors. Image collected and cropped by CiteAb from the following publication (https://dx.plos.org/10.1371/journal.pgen.1007873), licensed under a CC-BY license.

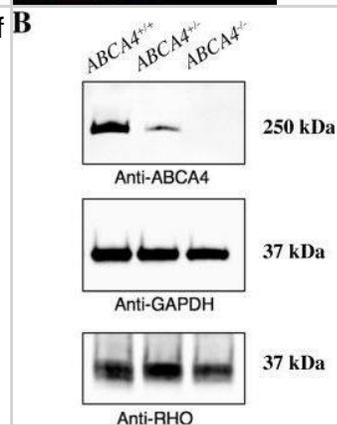www.novusbio.com   technical@novusbio.com

Western Blot: ABCA4 Antibody (3F4) [NBP1-30032] - Characterization of ABCA4 mRNA expression and western blot analyses of ABCA4 protein levels in the canine retina. 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 (https://dx.plos.org/10.1371/journal.pgen.1007873), licensed under a CC-BY license.

Immunohistochemistry: ABCA4 Antibody (3F4) [NBP1-30032] - Fluorescence histochemistry of ABCA4, cone photoreceptors, and autofluorescence in the canine retina. Fluorescence micrographs showing ABCA4 expression (red), FITC-conjugated peanut agglutinin (PNA, green), and DAPI nuclear staining (blue) in affected (ABCA4-/-) retina. PNA labels cone photoreceptors. Autofluorescence, indicative of lipofuscin accumulation, was seen in the ABCA4-/- RPE. Image collected and cropped by CiteAb from the following publication (https://dx.plos.org/10.1371/journal.pgen.1007873), licensed under a CC-BY license.
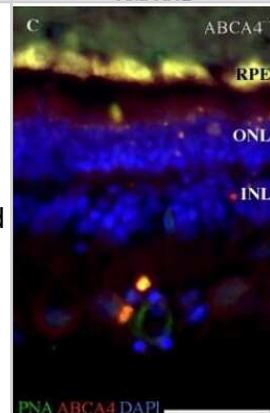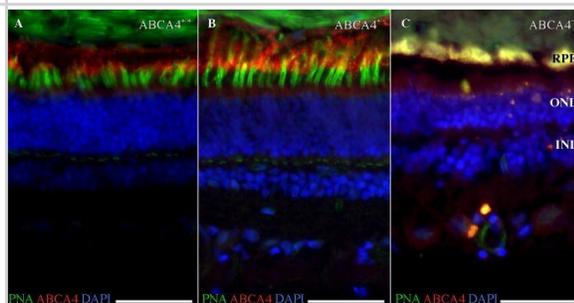

Western Blot: ABCA4 Antibody (3F4) [NBP1-30032] - Characterization of ABCA4 mRNA expression & western blot analyses of ABCA4 protein levels in the canine retina.(A) Relative ABCA4 mRNA expression levels by quantitative RT-PCR in three different regions in three dogs with different genotypes (ABCA4+/+, ABCA4+/-, & ABCA4-/-), normalized to GAPDH expression. (B) Western blot analyses of ABCA4 (above), GAPDH (middle), & RHO (below) protein levels in retinal tissue of dogs with the three different genotypes. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/30889179), licensed under a CC-BY license. Not internally tested by Novus Biologicals.
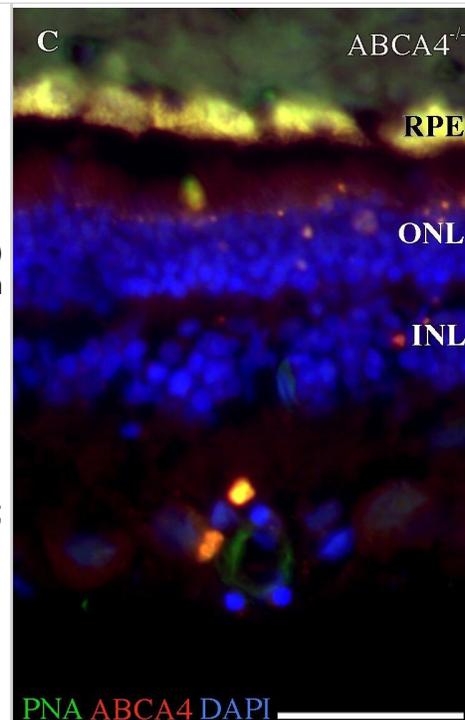
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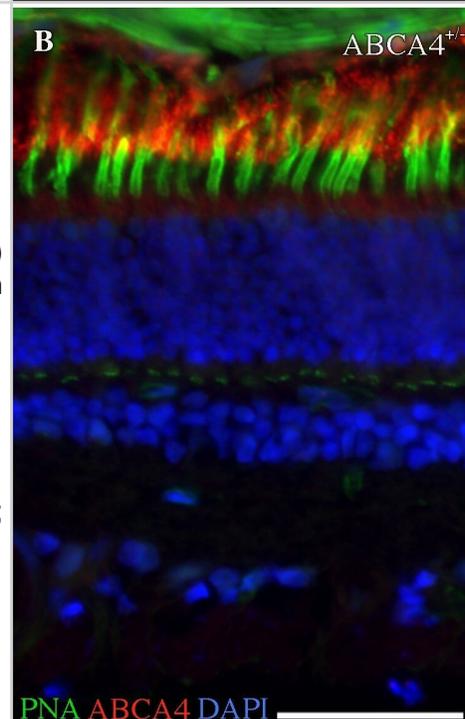
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Publications

Xiang H, Zhang B, Wang Y et al. Region-resolved multi-omics of the mouse eye Cell reports 2023-02-14 [PMID: 36790928]

Taveau N, Cubizolle A, Guillou L et al. Preclinical pharmacology of a lipophenol in a mouse model of light-induced retinopathy Exp. Mol. Med. 2020-07-08 [PMID: 32641711]

Makelainen, S;Godia, M;Hellsand, M;Viluma, A;Hahn, D;Makdoumi, K;Zeiss, CJ;Mellersh, C;Ricketts, SL;Narfstrom, K;Hallbook, F;Ekesten, 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] (WB, ICC/IF, Canine)

Wiszniewski, W et al. ABCA4 mutations causing mislocalization are found frequently in patients with severe retinal dystrophies. Human Molecular Genetics 14(19):2769-2778. 2005-01-01 [PMID: 16103129] (IHC-Fr, Xenopus)

Michelle Illing, Laurie L Molday Robert S Molday. The 220-kDa Rim Protein of Retinal Rod Outer Segments Is a Member of the ABC Transporter Superfamily. J. Biol. Chem., Vol 272 (15) I April 11. 10303-10310. 1997-01-01 [PMID: 9092582] (IHC-Fr, Bovine)

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NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)
H00000024-Q01-10ug	Recombinant Human ABCA4 GST (N-Term) Protein

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