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PRODUCT DATASHEET

Anti-ABCA4 (Rim Protein) Antibody

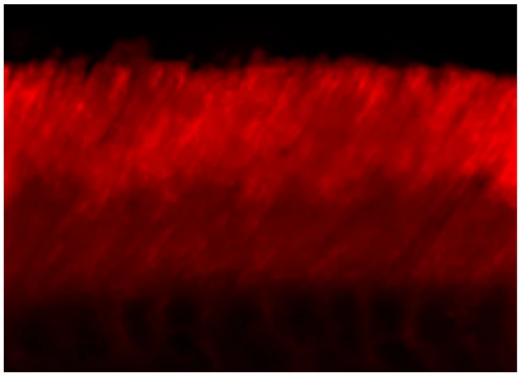
phosphosolutions ANTIBODIES THAT WORK

Product Details

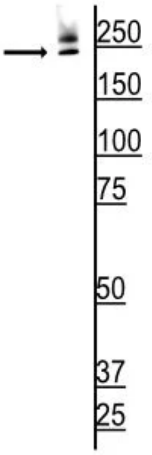
Available Variants	100 µL (SKU:115-ABCA4) 25 µL (SKU:115-ABCA4t)
Conjugate	Unconjugated
Isotype	IgG1
Clone	3F4
Gene Name	ABCA4
Host Species	Mouse
Format	Protein G Purified
Physical State	Liquid
Buffer	10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg per ml BSA and 50% glycerol.
Production Notes	Protein G purified culture supernatant.
Applications	ELISA, IHC, WB
Dilution Ranges	WB: 1:1000 WB Brain: 1:1000 IHC: 1:100
Species Reactivity	Bovine, Human, Mouse, Xenopus
Immunogen	Partially purified bovine 220-kDa disc rim protein
Specificity	Specific for endogenous levels of ABCA4.
Molecular Weight	220 kDa
Quality Control	Immunostaining performed on each lot.
Storage	Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C.

Antibody Registry ID	AB_2492034
UniProt ID	F1MWM0 UniProt Summary: Flippase that catalyzes in an ATP-dependent manner the transport of retinal-phosphatidylethanolamine conjugates like 11-cis and all-trans isomers of N-retinylidene-phosphatidylethanolamine (N-Ret-PE) from the lumen to the cytoplasmic leaflet of photoreceptor outer segment disk membranes, where 11-cis-retinylidene-phosphatidylethanolamine is then isomerized to its all-trans isomer and reduced by RDH8 to produce all-trans-retinol. This transport activity ensures that all-trans-retinal generated from photoexcitation and 11-cis-retinal not needed for the regeneration of rhodopsin and cone opsins are effectively cleared from the photoreceptors, therefore preventing their accumulation and the formation of toxic bisretinoid (PubMed:10075733, PubMed:20404325, PubMed:22735453, PubMed:23144455, PubMed:24097981, PubMed:29847635, PubMed:33375396). Displays ATPase activity in vitro in absence of retinal substrate (PubMed:33605212, PubMed:39128720, PubMed:29847635, PubMed:33375396). May display GTPase activity that is strongly influenced by the lipid environment and the presence of retinoid compounds (PubMed:22735453). Binds the unprotonated form of N-retinylidene-phosphatidylethanolamine with high affinity in the absence of ATP, and ATP binding and hydrolysis induce a protein conformational change that causes N-retinylidene-phosphatidylethanolamine release (By similarity). {ECO:0000250|UniProtKB:F1MWM0, ECO:0000269|PubMed:10075733, ECO:0000269|PubMed:20404325, ECO:0000269|PubMed:22735453, ECO:0000269|PubMed:23144455, ECO:0000269|PubMed:24097981, ECO:0000269|PubMed:29847635, ECO:0000269|PubMed:33375396, ECO:0000269|PubMed:33605212, ECO:0000269|PubMed:39128720}.
Shipping	Blue Ice
Expiration	After date of receipt, stable for at least 1 year at -20°C.
Usage Statement	For research use only. Not intended for therapeutic or diagnostic use. Use of all products is subject to our terms and conditions, which can be viewed on our website.
NCBI Gene ID	281584

Product Images



Immunohistochemical staining of adult mouse retina showing specific immunolabeling of the ABCA4 protein (red, 1;100). Photo courtesy of Mary Raven, University of California, Santa Barbara, CA.



Western blot of 70 day old mouse retina lysate showing immunolabeling of the ~220 kDa ABCA4 protein at a dilution of 1:1000.