

**ABCA4 (Rim Protein) Antibody**  
**Mouse monoclonal antibody**  
**Catalog # AN1167****Specification**

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**ABCA4 (Rim Protein) Antibody - Product Information**

Application	IHC
Primary Accession	<a href="#">O35600</a>
Reactivity	Bovine, Human, Mouse, Xenopus
Host	Mouse
Clonality	monoclonal
Isotype	IgG
Calculated MW	220 KDa

**ABCA4 (Rim Protein) Antibody - Additional Information**

Gene ID	11304
Gene Name	ABCA4

**Other Names**

Retinal-specific ATP-binding cassette transporter, ATP-binding cassette sub-family A member 4, RIM ABC transporter, RIM protein, RmP, Abca4, Abcr

**Target/Specificity**

Partially purified bovine 220-kDa disc rim protein.

**Dilution**

IHC~~ 1:100

**Format**

Protein G purified culture supernatant

**Antibody Specificity**

Specific for ABCA4

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

ABCA4 (Rim Protein) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Shipping**

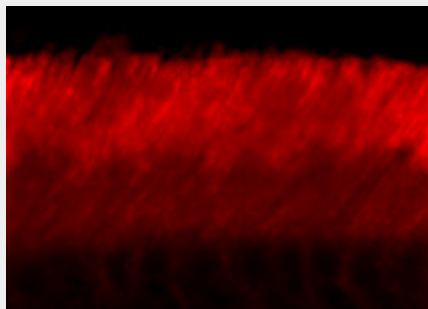
Blue Ice

**ABCA4 (Rim Protein) Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### **ABCA4 (Rim Protein) Antibody - Images**



Immunohistochemical staining of adult mouse retina showing specific immunolabeling of the ABCA4 protein. Photo courtesy of Mary Raven, University of California, Santa Barbara, CA.

#### **ABCA4 (Rim Protein) Antibody - Background**

ABCA4 (ATP-binding cassette, sub-family A (ABC1), member 4, Rim Protein) is a member of the superfamily of ATP-binding cassette (ABC) transporters (Illing et al., 1997). ABC proteins transport various molecules across extra- and intracellular membranes. This protein is a retina-specific ABC transporter with N-retinylidene-PE as a substrate. It is expressed exclusively in retina photoreceptor cells, indicating the gene product mediates transport of an essential molecule across the photoreceptor cell membrane. Mutations in this gene are found in patients diagnosed with Stargardt disease and are associated with retinitis pigmentosa-19 and age-related macular degeneration (Wiszniewski et al., 2003). Defects in ABCA4 are the cause of Stargardt disease type 1 (STGD1) (Molday et al., 2000). STGD is one of the most frequent causes of macular degeneration in childhood. Defects in ABCA4 are also known to cause fundus flavimaculatus (FFM), age-related macular degeneration type 2 (ARMD2) and cone-rod dystrophy type 3 (CORD3) (Klevering et al., 2005).

#### **ABCA4 (Rim Protein) Antibody - References**

Michelle Illing, Laurie L. Molday and Robert S. Molday. The 220-kDa Rim Protein of Retinal Rod Outer Segments Is a Member of the ABC Transporter Superfamily. J. Biol. Chem., (1997) Vol 272 (15) | April 11. 10303-10310.

Klevering BJ, Deutman AF, Maugeri A, Cremers FP, Hoyng CB (2005) The spectrum of retinal phenotypes caused by mutations in the ABCA4 gene. Graefes Arch Clin Exp Ophthalmol. 243(2):90-100.

Molday, L. et al., ABCR expression in foveal cone photoreceptors and its role in Stargardt macular dystrophy. Nature Genetics (2000) 25, 257 - 258.

Wiszniewski, W. et al., ABCA4 mutations causing mislocalization are found frequently in patients with severe retinal dystrophies. Human Molecular Genetics (2005) 14(19):2769-2778.