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Rhodopsin Antibody

Rabbit mAb
Catalog # AP91190

Product Information

Application	WB, IHC
Primary Accession	P08100
Reactivity	Rat, Human
Clonality	Monoclonal
Other Names	CSNBAD1; OPN2; opsd; Opsin 2 rod pigment; Opsin2; Retinitis pigmentosa 4 autosomal dominant; RHO; Rhodopsin; RP4;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	38893

Additional Information

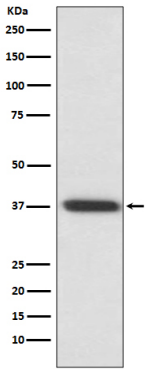
Dilution	WB 1:500~1:2000 IHC 1:50~1:200
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Rhodopsin
Description	Photoreceptor required for image-forming vision at low light intensity. Required for photoreceptor cell viability after birth. Light-induced isomerization of 11-cis to all-trans retinal triggers a conformational change leading to G-protein activation and release of all-trans retinal.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

Name	RHO (HGNC:10012)
Synonyms	OPN2
Function	G protein-coupled photoreceptor that activates the G protein transducin (t) signaling pathway in response to light and is essential for image-forming vision under low-light conditions (PubMed:6140680, PubMed:7846071, PubMed:8107847). Required for postnatal photoreceptor cell viability (PubMed:12566452, PubMed:2215617). Activation occurs when the covalently bound 11-cis-retinal chromophore absorbs a photon and isomerizes to all-trans-retinal, inducing a conformational change in the opsin that triggers G protein-mediated phototransduction (Probable) (PubMed:26200343, PubMed:28753425, PubMed:8107847). Signal termination occurs via receptor phosphorylation, which promotes binding of arrestin (SAG) and displacement of the G protein alpha subunit (Probable) (PubMed:26200343).

Cellular Location	Photoreceptor outer segment membrane; Multi-pass membrane protein. Membrane; Multi-pass membrane protein Note=Synthesized in the inner segment (IS) of rod photoreceptor cells before vectorial transport to disk membranes in the rod outer segment (OS) photosensory cilia.
Tissue Location	Rod shaped photoreceptor cells which mediate vision in dim light.

Images



Western blot analysis of Rhodopsin expression in rat eyeball lysate.

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