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RPE65 Rabbit mAb

Catalog # AP77677

Product Information

Application	WB, IP
Primary Accession	Q16518
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Immunogen	A synthesized peptide derived from human RPE65
Purification	Affinity Chromatography
Calculated MW	60948

Additional Information

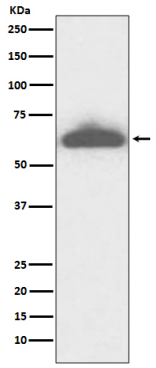
Gene ID	6121
Other Names	RPE65
Dilution	WB~~1/500-1/1000 IP~~N/A
Format	Liquid in 10mM PBS, pH 7.4, 150mM sodium chloride, 0.05% BSA, 0.02% sodium azide and 50% glycerol.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

Name	RPE65 (HGNC:10294)
Function	Critical isomerohydrolase in the retinoid cycle involved in regeneration of 11-cis-retinal, the chromophore of rod and cone opsins. Catalyzes the cleavage and isomerization of all-trans-retinyl fatty acid esters to 11-cis-retinol which is further oxidized by 11-cis retinol dehydrogenase to 11-cis-retinal for use as visual chromophore (PubMed:16116091). Essential for the production of 11-cis retinal for both rod and cone photoreceptors (PubMed:17848510). Also capable of catalyzing the isomerization of lutein to meso-zeaxanthin an eye- specific carotenoid (PubMed:28874556). The soluble form binds vitamin A (all-trans-retinol), making it available for LRAT processing to all- trans-retinyl ester. The membrane form, palmitoylated by LRAT, binds all-trans-retinyl esters, making them available for IMH (isomerohydrolase) processing to all-cis-retinol. The soluble form is regenerated by transferring its palmitoyl groups onto 11-cis-retinol, a reaction catalyzed by LRAT (By similarity).

Cellular Location	Cytoplasm {ECO:0000250|UniProtKB:A9C3R9}. Cell membrane; Lipid-anchor. Microsome membrane {ECO:0000250|UniProtKB:Q28175}. Note=Attached to the membrane by a lipid anchor when palmitoylated (membrane form), soluble when unpalmitoylated. Undergoes light-dependent intracellular transport to become more concentrated in the central region of the retina pigment epithelium cells.
Tissue Location	Retina (at protein level). Retinal pigment epithelium specific.

Images



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