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RPE65 Antibody

Rabbit mAb
Catalog # AP91260

Product Information

Application	WB, IP
Primary Accession	Q16518
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	LCA2; mRPE65; p63; rd12; Retinal pigment epithelium specific 61 kDa protein; RP20; RPE65; sRPE65;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	60948

Additional Information

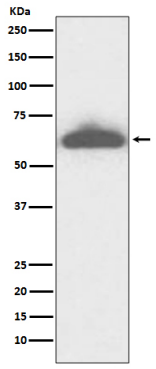
Dilution	WB 1:500~1:2000 IP 1:50
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human RPE65
Description	Plays important roles in the production of 11-cis retinal and in visual pigment regeneration. The soluble form binds vitamin A (all-trans-retinol), making it available 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.
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	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



Western blot analysis of RPE65 expression in mouse eyeball lysate.

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