

Anti-RPE65 Rabbit Monoclonal Antibody

Catalog # ABO13786

Product Information

Application	WB, IP
Primary Accession	Q16518
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid
Description	Anti-RPE65 Rabbit Monoclonal Antibody . Tested in WB, IP applications. This antibody reacts with Human, Mouse, Rat.

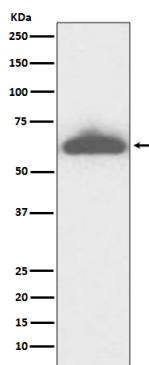
Additional Information

Gene ID	6121
Other Names	Retinoid isomerohydrolase, 3.1.1.64, All-trans-retinyl-palmitate hydrolase, Lutein isomerase, Meso-zeaxanthin isomerase, 5.3.3.22, Retinal pigment epithelium-specific 65 kDa protein, Retinol isomerase, RPE65 (HGNC:10294)
Calculated MW	60948
Application Details	WB 1:500-1:2000 IP 1:50
Subcellular Localization	Cytoplasm. Cell membrane ; Lipid-anchor. Microsome membrane. Attached to the membrane by a lipid anchor when palmitoylated (membrane form), soluble when unpalmitoylated (By similarity). Undergoes light-dependent intracellular transport to become more concentrated in the central region of the retina pigment epithelium cells..
Tissue Specificity	Retinal pigment epithelium specific..
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names	Clone: ABAH-18
Immunogen	A synthesized peptide derived from human RPE65
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated 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



Western blot analysis of RPE65 expression in mouse eyeball lysate.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.