Recombinant Mouse Rpe65 Protein, Myc/DDK-tagged

Cat. No. Rpe65-5581M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length retinal pigment epithelium 65 (Rpe65), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	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. Essential for the production of 11-cis retinal for both rod and cone photoreceptors. Also capable of catalyzing the isomerization of lutein to meso-zeaxanthin an eye-specific carotenoid. 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.
Molecular Mass	61.5 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and

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	handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 μg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Rpe65 retinal pigment epithelium 65 [Mus musculus (house mouse)]
Official Symbol	Rpe65
Synonyms	RPE65; retinal pigment epithelium 65; retinoid isomerohydrolase; retinol isomerase; modifier of retinal degeneration 1; retinal pigment epithelium, 65 kDa; all-trans-retinyl-palmitate hydrolase; retinal pigment epithelium-specific 65 kDa protein; LCA2; RP20; rd12; 65kDa; Mord1; A930029L06Rik
Gene ID	19892
mRNA Refseq	NM_029987
Protein Refseq	NP_084263
UniProt ID	Q91ZQ5

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