

## Product datasheet for **TP762502**

### RPE65 (NM\_000329) Human Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Human retinal pigment epithelium-specific protein 65kDa (RPE65), 340Tyr-End, with N-terminal His tag, expressed in E.coli, 50ug
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	A DNA sequence encoding the region (340Tyr-End) of RPE65
Tag:	N-His
Predicted MW:	24.3kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, pH 8.0, 150 mM NaCl, 1% sarkosyl, 10% glycerol
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C after receiving vials.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	<a href="#">NP_000320</a>
Locus ID:	6121
UniProt ID:	<a href="#">Q16518</a>
RefSeq Size:	2608
Cytogenetics:	1p31.3
RefSeq ORF:	1599
Synonyms:	BCO3; LCA2; mRPE65; p63; rd12; RP20; sRPE65



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**Summary:**

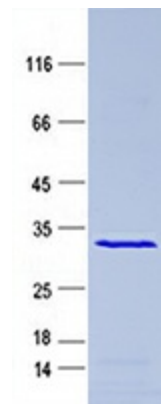
The protein encoded by this gene is a component of the vitamin A visual cycle of the retina which supplies the 11-cis retinal chromophore of the photoreceptors opsin visual pigments. It is a member of the carotenoid cleavage oxygenase superfamily. All members of this superfamily are non-heme iron oxygenases with a seven-bladed propeller fold and oxidatively cleave carotenoid carbon:carbon double bonds. However, the protein encoded by this gene has acquired a divergent function that involves the concerted O-alkyl ester cleavage of its all-trans retinyl ester substrate and all-trans to 11-cis double bond isomerization of the retinyl moiety. As such, it performs the essential enzymatic isomerization step in the synthesis of 11-cis retinal. Mutations in this gene are associated with early-onset severe blinding disorders such as Leber congenital. [provided by RefSeq, Oct 2017]

**Protein Families:**

Druggable Genome

**Protein Pathways:**

Retinol metabolism

**Product images:**

Purified recombinant protein RPE65 was analyzed by SDS-PAGE gel and Coomassie Blue Staining.