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Product datasheet for RC210433L3V

RPE65 (NM_000329) Human Tagged ORF Clone Lentiviral Particle

Product data:

Product Type:	Lentiviral Particles
Product Name:	RPE65 (NM_000329) Human Tagged ORF Clone Lentiviral Particle
Symbol:	RPE65
Synonyms:	BCO3; LCA2; mRPE65; p63; rd12; RP20; sRPE65
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-Myc-DDK-P2A-Puro (PS100092)
Tag:	Myc-DDK
ACCN:	NM_000329
ORF Size:	1599 bp
ORF Nucleotide Sequence:	`The ORF insert of this clone is exactly the same as(RC210433).`
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	NM_000329.2
RefSeq Size:	2608 bp
RefSeq ORF:	1602 bp
Locus ID:	6121
UniProt ID:	Q16518
Cytogenetics:	1p31.3
Domains:	RPE65
Protein Families:	Druggable Genome

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Protein Pathways: Retinol metabolism

MW: 61.4 kDa

Gene 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]