

Datasheet for ABIN5463289

Human RP1 ORF Clone in Mammalian Expression Vector (Myc-DYKDDDDK Tag)

Overview

Quantity:	10 µg
Gene:	RP1
Species:	Human
Fusion tag:	Myc-DYKDDDDK Tag
Insert:	ORF
Vector:	Mammalian Expression Vector
Application:	Protein Expression (PEXP)

Product Details

Purpose:	Mammalian Vector with ORF clone of Human retinitis pigmentosa 1 (autosomal dominant) (RP1)
Brand:	TrueORF
Insert Length:	6471 bp
Vector Backbone:	pCMV6-Entry
Promoter:	CMV Promoter
Bacterial Resistance:	Kanamycin
Expression Type:	Transient
Specificity:	Restriction Site: SgfI-MluI
Sequencing Primer:	VP1.5 (forward) 5'GGACTTTCCAAAATGTCTG 3', XL39 (reverse) 5'ATTAGGACAAGGCTGGTGGG 3'
Grade:	End-sequenced
Components:	The ORF clone is ion-exchange column purified, transfection-ready dried plasmid DNA, and

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Product Details

shipped with 2 vector sequencing primers.

Target Details

Gene: RP1

Abstract: [RP1 Products](#)

Background: This gene encodes a member of the doublecortin family. The protein encoded by this gene contains two doublecortin domains, which bind microtubules and regulate microtubule polymerization. The encoded protein is a photoreceptor microtubule-associated protein and is required for correct stacking of outer segment disc. This protein and the RP1L1 protein, another retinal-specific protein, play essential and synergistic roles in affecting photosensitivity and outer segment morphogenesis of rod photoreceptors. Because of its response to in vivo retinal oxygen levels, this protein was initially named ORP1 (oxygen-regulated protein-1). This protein was subsequently designated RP1 (retinitis pigmentosa 1) when it was found that mutations in this gene cause autosomal dominant retinitis pigmentosa. Mutations in this gene also cause autosomal recessive retinitis pigmentosa. Transcript variants resulted from an alternative promoter and alternative splicings have been found, which overlap the current reference sequence and has several exons upstream and downstream of the current reference sequence. However, the biological validity and full-length nature of some variants cannot be determined at this time.

NCBI Accession: [NM_006269](#), [NP_006260](#)

Application Details

Restrictions: For Research Use only

Handling

Format: Lyophilized

Storage: 4 °C/-20 °C

Publications

Product cited in: Johnson, Drugan, Miller, Evans: "38" in: , Vol. 1363, Issue Nucleic acids research, pp. 28-39, (1991)

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