

Recombinant Human RP1 Protein, His-tagged

Cat. No. RP1-2659H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human RP1 Protein (Lys36-Asp233) with a N-His tag was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	Lys36-Asp233
Description	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.

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Form	Freeze-dried powder
Molecular Mass	Predicted Molecular Mass: 25.8 kDa Accurate Molecular Mass: 31 kDa
Endotoxin	<1.0 EU per 1g (determined by the LAL method).
Purity	> 90%
Applications	Positive Control; Immunogen; SDS-PAGE; WB.
Stability	The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 centigrade for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8 centigrade for one month. Aliquot and store at -80 centigrade for 12 months.
Storage Buffer	PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Reconstitution	Reconstitute in PBS or others.

GENE INFORMATION

Gene Name	RP1 RP1 axonemal microtubule associated [Homo sapiens (human)]
Official Symbol	RP1
Synonyms	RP1; RP1 axonemal microtubule associated; ORP1; DCDC4A; oxygen-regulated protein 1

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doublecortin domain containing 4A
retinitis pigmentosa 1 (autosomal dominant)
retinitis pigmentosa 1 protein
retinitis pigmentosa RP1 protein

Gene ID 6101

mRNA Refseq NM_006269

Protein Refseq NP_006260

MIM 603937

UniProt ID P56715

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