

Product datasheet for RC210357

PRPH2 (NM_000322) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PRPH2 (NM_000322) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PRPH2
Synonyms:	AOFMD; AVMD; CACD2; DS; MDBS1; PRPH; rd2; RDS; RP7; TSPAN22
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC210357 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGGCGCTACTGAAAGTCAAGTTTGACCAGAAGAAGCGGGTCAAGTTGGCCCAAGGGCTCTGGCTCATGA
ACTGGTTCTCCGTGTTGGCTGGCATCATCATCTTCAGCCTAGGACTGTTCTGAAGATTGGACTCCGAAA
GAGGAGCGATGTGATGAATAATTCTGAGAGCCATTTTGTGCCAACTCATTGATAGGGATGGGGTGCTA
TCCTGTGTCTTCAACTCGCTGGCTGGGAAGATCTGCTACGACGCCCTGGACCCAGCCAAGTATGCCAGAT
GGAAGCCCTGGCTGAAGCCGTACCTGGCTATCTGTGCCTCTTCAACATCATCCTCTTCTGTGGCTCT
CTGCTGCTTTCTGCTTCGGGGCTCGCTGGAGAACCCTGGGCCAAGGGCTCAAGAACGGCATGAAGTAC
TACCGGGACACAGACACCCTGGCAGGTGTTTCATGAAGAAGACCATCGACATGCTGCAGATCGAGTTCA
AATGCTGCGGCAACAACGGTTTTTCGGGACTGGTTTGAGATTCAAGTGGATCAGCAATCGCTACCTGGACTT
TTCTCCAAAGAAGTCAAAGATCGAATCAAGAGCAACGTGGATGGGCGGTACCTGGTGGACGGCGTCCCT
TTCAGTGTGCAATCCTAGCTCGCCACGGCCCTGCATCCAGTATCAGATCACCACAACTCAGCACACT
ACAGTTACGACCACCAGACGGAGGAGCTCAACCTGTGGGTGCGTGGCTGCAGGGCTGCCCTGCTGAGCTA
CTACAGCAGCCTCATGAACTCCATGGGTGTCGTCACGCTCCTCATTGGCTCTTCGAGGTGACCATTACA
ATTGGGCTGCGCTACCTACAGACGTCGCTGGATGGTGTGTCACACCCGAGGAATCTGAGAGCGAGAGCG
AGGGCTGGCTGCTGGAGAAGAGCGTGCCGGAGACCTGGAAGGCCTTTCTGGAGAGTGTGAAGAAGCTGGG
CAAGGGCAACCAGGTGGAAGCCGAGGGCGCAGGGCCAGGCCAGGCCCCAGAGGCTGGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC210357 protein sequence
 Red=Cloning site Green=Tags(s)

MALLKVKFDQKKRVKLAQGLWLMNWFVSLAGIIFSLGLFLKIGLRKRSVDMNNSSESHFV PNSLIGMGVL
 SCVFNSLAGKICYDALDPAKYARWKPWLPYLAICVLFNII FLVALCCFLLRGSLENTLGQGLKNGMKY
 YRDTDTPGRCFMKKTIDMLQIEFKCCGNGFRDWF EIQWISNR YLDFSSKEVKDRIKSNVDGRYLVDGVP
 FSCCNPSSPRPCIQYQITNNSAHYSYDHQTEELNLWVRGCRAALLSYSSLMNSMGVVTLLIWLFEVTIT
 IGLRYLQTSLDGVSNPEESESESEGWLLLEKSVPETWKAFLSVKVLGKGNQVEAEGAGAGQAPEAG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6006_d04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_000322

ORF Size: 1038 bp

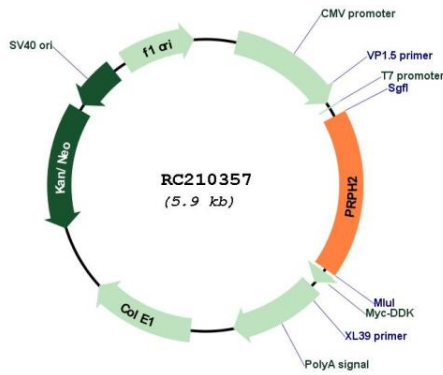
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

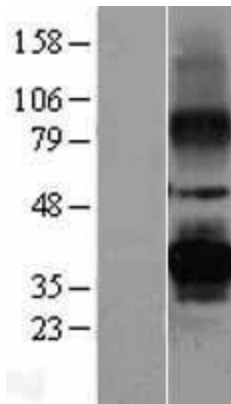
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_000322.5
RefSeq Size:	3027 bp
RefSeq ORF:	1041 bp
Locus ID:	5961
UniProt ID:	P23942
Cytogenetics:	6p21.1
Domains:	transmembrane4
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Amyotrophic lateral sclerosis (ALS)
MW:	39.1 kDa
Gene Summary:	<p>The protein encoded by this gene is a member of the transmembrane 4 superfamily, also known as the tetraspanin family. Most of these members are cell-surface proteins that are characterized by the presence of four hydrophobic domains. The proteins mediate signal transduction events that play a role in the regulation of cell development, activation, growth and motility. This encoded protein is a cell surface glycoprotein found in the outer segment of both rod and cone photoreceptor cells. It may function as an adhesion molecule involved in stabilization and compaction of outer segment disks or in the maintenance of the curvature of the rim. This protein is essential for disk morphogenesis. Defects in this gene are associated with both central and peripheral retinal degenerations. Some of the various phenotypically different disorders are autosomal dominant retinitis pigmentosa, progressive macular degeneration, macular dystrophy and retinitis pigmentosa digenic. [provided by RefSeq, Jul 2008]</p>

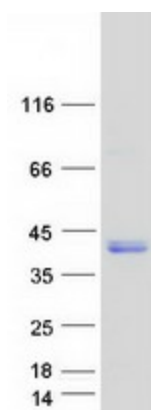
Product images:



Circular map for RC210357



Western blot validation of overexpression lysate (Cat# [LY400122]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210357 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PRPH2 protein (Cat# [TP310357]). The protein was produced from HEK293T cells transfected with PRPH2 cDNA clone (Cat# RC210357) using MegaTran 2.0 (Cat# [TT210002]).