

Product datasheet for **MC209321**

Rp1 (NM_001195662) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Rp1 (NM_001195662) Mouse Untagged Clone
Tag: Tag Free
Symbol: Rp1
Synonyms: Dcdc3; Gm38717; mG145; O; Orp1; Rp; Rp1h
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC209321 representing NM_001195662
Red=Cloning site **Blue**=ORF **Orange**=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGCTTGAGAAATTCAGGTCTCACCCAAATGAGTGACACACCTTCTACTAGTTTCTCCATGATTCATC
TGACTTCTGAAGGTCAAGTTCCTTCCCCTCGCCATTCAAATATCACTCATCCTGTAGTGGCTAAACGCAT
CAGTTTCTATAAGAGTGGAGACCCACAGTTTGGCGCGTTCGGGTGGTCAACCCTCGTTCCTTAAAG
ACTTTTGACGCTCTGCTGGACAGTTTATCCAGGAAGGTACCCCTGCCCTTGGGGTAAGGAACATCAGCA
CGCCCCGTGGACGACACAGCATCACCAGGCTGGAGGAGCTAGAGGACGGCAAGTCTTATGTGTGCTCCCA
CAATAAGAAGGTGCTGCCAGTTGACCTGGACAAGGCCCGCAGGCGCCCTCGGCCCTGGCTGAGTAGTCGC
TCCATAAGCACGCATGTGCAGCTCTGTCTGCAACTGCCAATATGTCCACCATGGCACCTGGCATGCTCC
GTGCCCAAGGAGGCTCGTGGTCTTCCGGAATGGTGACCCGAAGAATAAGCATGTGGTCTTCTTAGCCG
GAGGATCACTCAGAGCTTCGAAGCCTTCTGCAGTACCTGACACAGGTTATGCAGTGTCTGTGGCCAAG
CTGTATGCCACAGATGGAAGAAAAGTTCCTAGTCTCCAGGCAGTGATACTCAGCTCTGGAGCTGTGGTGG
CAGCTGGAAGGGAGCCATTTAAACCAGGAAATACGACATACAAAAGTACTTGCTTCCTGCCAAGTTACC
AGGAATCTCTCATCGTGTGCACCAGAAGGAAAAGCCAAGATAGAAAAAGAAAGAATTATGGTTGGGGA
CATAGGAACGCCGTT**TAA**

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_001195662
Insert Size: 858 bp



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OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<u>NM_001195662.1</u> , <u>NP_001182591.1</u>
RefSeq Size:	3047 bp
RefSeq ORF:	858 bp
Locus ID:	19888
Cytogenetics:	1 1.65 cM
Gene Summary:	<p>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. [provided by RefSeq, Jun 2019]</p> <p>Transcript Variant: This variant (2) has an alternate 5' exon, which results in an upstream in-frame AUG start codon, and an alternate 3' exon, as compared to variant 1. The resulting isoform (2) has a longer N-terminus, but has a much shorter and distinct C-terminus, as compared to isoform 1. The isoform 2 retains two doublecortin domains.</p>