

Product datasheet for **SC303763**

RP1 (NM_006269) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RP1 (NM_006269) Human Untagged Clone
Tag:	Tag Free
Symbol:	RP1
Synonyms:	DCDC4A; ORP1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC303763 representing NM_006269. Blue=Insert sequence Red=Cloning site Green=Tag(s)

```
GCTCGTTTGTAGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGAGTGATACCCCTTCTACTGGTTTTCCATCATTTCCTACGCTTCTGAAGGTCAAGTTCACCC
CCTCGCCATTTGAGCCTCACTCATCCTGTTGTGGCCAAGCGAATCAGTTTCTACAAGAGCGGAGACCCC
CAATTCGGCGGGGTGAGGTGGTGGTCAACCCCGCTCCTTTAAGTCTTTGATGCTCTGCTGGATAAC
TTGTCCAGGAAGGTGCCCTCCCTTTGGAGTGAGGAACATCAGCACCCCTCGGGCAGGCACAGCATC
ACGCGCCTGGAGGAGCTGGAGGACGGCGAGTCTACCTATGTTCCACGGCAGGAAGGTGCAGCCTGTA
GACCTGGACAAAGCCCGTGGCGCCCGCGCCCTGGCTCAGCAGCCGGGCCATTAGCGCGCACTCACCG
CCCCACCCCGTAGCCGTGCTGCTCCCGGATGCCCGCCCGCCACGGAGCCTAGTGGTCTTCAGGAAT
GGCGACCCGAAGACGAGGCGTGGGTTCTTCTGAGCAGGAGGGTACCCAGAGCTTCGAGGCATTTCTA
CAGCACCTGACAGAGGTCATGCAGCGCCCTGTGGTCAAGCTGTACGCTACGGACGGAAAGGAGGGTCCC
AGCCTCCAGGCAGTGATCCTGAGCTCTGGAGCTGTGGTGGCGGCAGGAAGGGAGCCATTTAAACCAGGA
AATTATGACATCCAAAAATACTTGCTTCTGCTAGATTACCAGGGATCTCTCAGCGTGTGTACCCCAAG
GGAAATGCAAAGTCAGAAAGCAGAAAGATAAGCACACATATGTCTCAAGCTCAAGTCCCAGATTTAT
TCTGTTTCTTCTGAGAAAACACATAATAATGATTGCTACTTAGACTATTCTTTTGTCTGAAAAGTAC
TTGGCCTTAGAAAAGATGATTCTCAGAATTTACCAATATACCTTCTGAAGATGATATTGAGAAATCA
ATTATTTTAAATCAAGACGGCACTATGACAGTTGAGATGAAAGTTCGATTGAGAAATAAAGAGGAAGAA
ACCATAAAATGGCAACTACTGTGAGTAAACTGGTCTTCTAATAATGATGAAAAGAGTGAGATGAGT
TTTCCAGGAAGAAGCAGAAAGTCGATCATCTGGTTAAAGCTTGCAGCATGTTTCTCTGCAGATGTG
TCACCTATGGAGCGAAGCAGTAATCAAGAGGGCAGTTTGGCAGAGGAGATAAACATTCAAATGACAGAT
CAAGTGGCTGAACTTGCAGTCTGCTAGTTGGGAGAATGCTACTGTGGACACAGATATCATCCAGGGA
ACTCAAGACCAAGCAAAGCATCGTTTTTATAGGCCCCCTACACCTGGACTAAGAAGAGTGAGACAAAAG
AAATCTGTGATTGGCAGTGTGACCTTAGTATCTGAAACTGAGGTTCAAGAGAAAAATGATTGGACAGTTT
TCATATAGTGAAGAAAGGAAAGTGGGAAAACAAGTCTGAGTATCACATGTTTACACATTTCTGACGT
```



[View online »](#)

AAAATGTCATCAGTATCTAACAAACCACTTGTTCAGATCAATAACAATGATCAAATGGAGGAGTCA
 TCATTAGAAAAGAAAAAGGAAAAACAGTCTGCTTAAGTCAAGTGAATAAGTGTGGTGTATAGAAAT
 ACAAGTCAGAAGATGTTAGAGATGTCACATAAATAATGGTTTGCCATCACTATATCAAAATACTCAATT
 GTGGAGGAAGATGTAGTTGATTGTGTGGTATTGGACAACAAAACCTGGTATCAAGAAGTCCAAAACCTAT
 GGTAACACCAATGATAGGTTTCAGTCTATTTTCAGCAGATGCAACCCATTTTTCAAGTAATAACTCTGGA
 ACTGACAAAAATTTCTGAGGCTCCAGCTTCAGAAGCATCCTCTACTGTCAGTCAAGAATTTGACAGA
 CTAATTAATGAATTTGCTCAGTGTGGTTTAAACAAAACCTCCAAAAATGAAAAGAAGATTTTGTCACT
 GTTGCCAGCAAAAAGAAGAAAAATCTCGACAGCAAGCAATAAATTTCCAGGTATCAAGATGGACAGCTT
 GCAACCAAGGAATTCCTAATAAGAATGAGAGAATAAACACAAAAGGTAGAATTACAAAGGAAATGATA
 GTGCAAGATTCAGATAGTCCCCTTAAAGGAGGGTACTTTGTGAGGAAGACCTCCAGAAAAGTGACT
 GTAATTGAATCAAATACTTTTTGTTCCAAAAGTAACTCAATTCCACGATTTCCAAGAATTTCCATAGA
 AATAAATAAATACTACTCAAATTTCAAGGTTCAAGGACTTTTAAACAAAAGAAAATCTAGATCACTA
 AATAAATAAGCTTAGGAGCACCTAAAAAAGAGAAATCGGTCAAAGAGATAAAGTGTTCCTCACAAT
 GAATCTAATAATTGCAAAAGTACTTTTGAAAACAAAAGTTTATTTTCATGTATTTAACATCCTTGAGCAA
 AAACCCAAAGATTTTTATGCACCGAATCTCAAGCAGAAGTGGCATCTGGGTATTTGAGAGGAATGGCA
 AAGAAGAGTTTAGTTTCAAAAGTACTGATTACACATAACTTTAAAAAGCCAGAAAAACGTAAAGGG
 GATAAAGTGAAAGCAAGTGTATTTAAGTAAACAACATGCTACAACCAGGGCAAATTTCTTAGCTTCT
 TTGAAAAACCTGATTTTCTGAGGCTATTGCTCATCAATTCAAATTTATATACAGAGTTGGTTG
 CAGAACATAAATCCATATCCAACTTTAAAGCCTATAAAATCAGCTCCAGTATGTAGAAAATGAAACGAGT
 GTGGTAAATGTAGCAATAATAGTTTTTCAGGGAAATGATCCCATACAAATCTGGAAAAATAAGTAAT
 TTTGTTATGGAAGTAATAAGCACATAACTAAAATTTGCCGGTTTGACAGGAGATAATCTATGTAAGAG
 GGAGATAAGTCTTTTATGCCAATGACACTGGTGAAGAAGATCTCCATGAGACACAGGTTGGATCTCTG
 AATGATGCTTATTTGGTTCCCTGCATGAACACTGTACTTTGTCACAGTCACTATTAATGATCAATA
 AGTAAAAAGTCATATAGCTGCTGAAAAATCAGGACCAGAGAAAAAACTGTTTTACCAGGAAATAAACCTA
 GCTAGAAAAAGGCAAGTGTAGAGGCTGCCATTCAAGTAGATCCTATAGAAGAGGAAACTCCAAAAGAC
 CTCTTACCAGTCTGATGCTTACCAATTGCAAGCTTCAGTTCCTGGTATTCACAAGACTCAGAATGGA
 GTTGTTCAAATGCCAGGTTCACTTGCAGGTGTTCCCTTTCATTCTGCAATATGTAATTCACCACTAAT
 CTCCTTCTAGCTTGGCTTGTGCTAAACCTAAAGGGAAGTATGAATAGCTTCTGTCAAGTTGATGCT
 CACAAGGCTACCAACAAATCTTCAGAAACACTTGCATTGTTGGAGATTCTAAAGCACATAGCTATCACA
 GAGGAAGCTGATGACTTGAAGCTGCTGTTGCCAATTTAGTGGAGTCACTACAAGCCACTTTGGACTC
 AGTGAGAAAGAACAAGACATGGTTCCAATAGATCTTTCTGCAAAATGTTCCACGGTCAACATTCAGAGT
 GTTCTTAAGTGCAGTGAATGAAAGAACAAGGAATCTCCTCTTTGGATGGAGGTTGCTCTGCCAGT
 GAGGCATGTGCCCTGAAGTCTGTGTTTTGGAAGTGAAGTGTCTCTCCATGTGAGATGTGCACTGTAAT
 AAGGCTTATTCTCCAAAAGAGACATGTAACCCCACTGACTTTTTTTCTAGTGTGGTTATGGTGTG
 GATCAGACTTCTATGAATAAGGCTTGTTCCTAGGAGAGGCTGTTCCTTACTGATGACTGTGTTTTCT
 GATAAGGCTTGTGCTCAAAAGGAGAACCATACCTATGAGGGAGCTTGCCCAATTGATGAGACCTACGTT
 CCTGTCAATGTCTGCAATACCATTGACTTTTTAACTCCAAAAGAAAACACATATACTGATAACTTGGAT
 TCAACTGAAGAGTTAGAAAGAGGTGATGACATTCAGAAAGATCTAATAATTTTGACAGCCCTGAATAT
 AAAAAAGGATTTAATACATTGGTGTACATCAAAATGTCAGTAATTTAAGCTCCTGTGGCCTTTGCCCTA
 AGTGAAAAAGAAGCAGAAGTGTGATAAGAAACATAGTTCTCTAGATGATTTTGAATAATTTGACTAAGG
 AAGTTTACAGATGAAAATGCATATACTTCTTTGATATGGAAGAACCACGGACTTCTGAAGAACCAGGC
 TCAATAACCAACAGCATGACATCAAGTGAAGAAACATTTCAGAAATGGAATCTTTTGAAGAATTAGAA
 AACCATGACACTGATATCTTTAATACAGTGGTAAATGGAGGAGAGCAAGCCACTGAAGAATTAATCCAA
 GAAGAGGTAGAGGCTAGTAAAACCTTGAATGATAGACATCTCTAGTAAGAATATTATGGAAGAAAAA
 AGAATGAACGGTATAATTTATGAAATAATCAGTAAGAGGCTGGCAACACCACCATCTTTAGATTTTTGC
 TATGATTCTAAGCAAAATAGTAAAAGGAGACCAATGAAGGAGAACTAAGATGGTAAAAATGATGGTG
 AAAACTATGAAAAGTGAAGTATTCAGAGTCTCTCTGATTTAAAAAATGCATCAAAAGTCCAGTG
 ACTTCTGATTGGTCAACTATCGGCCTGACAGTGAAGTGAAGCAGCCATATAAAACATCCAGTGATGAT
 CCCAATGACAGTGGCGAACTTACCAAGAGAAAGAATATAACATAGGATTTGTTAAAAAGGCAATAGAA
 AAAGTGTACGGTAAAGCAGATATTATCAAACCATCTTTTTTCTGGGTCTACCCGCAAATCTCAGGTT
 TGTCTTATAATTTCTGTGGAATTTCAAGTGTCCAGGAAAGCAAGTCTTTATGATTCTGAAGGGCAGTCA
 TTTGGCTTCTGAACAGGTATCTAGTGTTCATGTTGCAGGAATTCAGGAGGAAAGACAAGT

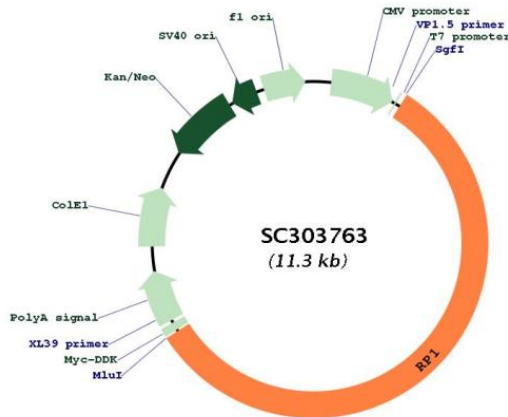
```

AAGTGTGATGTTAGTGCTGTGAGGGACAATTATTGTAGGGGTGACATTGTAGAACCTGGTACAAAACAA
AATGATGATAGCAGAATCCTCACAGACATAGAGGAAGGAGTACTGATTGACAAAGGCAAATGGCTTCTG
AAAGAAAATCATTTGCTAAGGATGTCACTGAAAATCCTGGCATGTGTGGCAATGCAGACACCACATCA
GTGGACACCCTACTTGATAATAACAGCAGTGAGGTACCATATTACATTTTGGTAATTTGGCCCCAGGC
CCAACGATGGATGAACCTCCTCTTCAGAACTCGAGGAAGTACTCAACCCCTTGAACATAAATGCAAT
TACTTTAACATGCCTCATGGTAGTGACTCAGAACCTTTTCATGAGGACTTGCTGGATGTTTCGCAATGAA
ACCTGTGCCAAGGAAAAGAATAGCAAATCATCATACAGAGGAGAAGGGTAGTCATCAGTCAGAAAGAGTA
TGCACATCTGTCACTCATTCTTTATTTCTGCTGGTAACAAAGTCTACCCTGTCTCTGATGATGCTATT
AAAAACCAACCATTGCCTGGCAGTAATATGATTATGTTACACTTCAGGAAGCTGACTCTTTGGATAAA
CTGTATGCTCTTTGTGGTCAACATTGCCAATACTAATACTGTTATTATCCAACCCATGAATGAGGAAGAC
CGAGGATTTGCATATCGCAAAGAATCTGATATTGAAAATTTCTTGGGTTTTTATTATGGATGAAAATA
CACCCATATTTACTTCAGACAGACAAAAATGTGTTTCAGGGAAGAGAACAATAAAGCAAGTATGAGACAA
AATCTTATTGATAATGCCATTGGTGATATATTTGATCAGTTTTATTTAGTAACACATTTGACTTGATG
GGTAAAAGAAGAAAACAAAAAGAATTAACCTTCTGGGGTTAGAGGAAGAAGTAATTTAAGAAAATTT
CAACCAGATTTGAAGGAAAGTTTTGTATGAATTTCTTGACACATCATTGTTAGTTGTGGGTAATGTG
GATTCAAATACACAAGACCTCAGCGGTCAGACAATGAAATCTTTAAAGCAGTCGATGAGAAATAACAC
TTATTAATAACAGATTCAGGGCTCAAGAACAATCTCAACCAAGTAGTAAGAGAAAATATCAACTGT
CATTACTTCTTTGAAATGCTTGGTCAAGCTTGCCTCTTAGATATTTGCCAAGTTGAGACCTCCTTAAT
ATTAGCAACAGAAATATTTAGAACTTTGTATGTTTGGGGTAAAATCTTTTCATTTGGGAAGAGGAA
GACATATTAATTTAACTGATCTTGAAGCAGTAGAGAACAGAAGATTTATAA
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
    
```

Restriction Sites:

Sgfl-MluI

Plasmid Map:



ACCN:

NM_006269

Insert Size:

6471 bp

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).

OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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_006269.1
RefSeq Size:	7100 bp
RefSeq ORF:	6471 bp
Locus ID:	6101
UniProt ID:	P56715
Cytogenetics:	8q11.23-q12.1
Protein Families:	Druggable Genome
MW:	240.7 kDa
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. 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.[provided by RefSeq, Sep 2010]</p>