

## Product datasheet for **RG220424**

### RPGR (NM\_000328) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	RPGR (NM_000328) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	RPGR
Synonyms:	COD1; CORDX1; CRD; orf15; PCDX; RP3; RP15; XLRP3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RG220424 representing NM\_000328  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAGGGAGCCGGAAGAGCTGATGCCCGATTCCGGTGTCTGTGTTACATTTGGGAAAAGTAAATTTGCTG  
 AAAATAATCCCGTAAATTCTGGTTAAAAATGATGTCCCTGTACATCTTTCATGTGGAGATGAACATTC  
 TGCTGTTGTTACCGAAAATAATAAACTTTACATGTTTGGCAGTAACAACCTGGGGTCAAGTATAGGATAGGA  
 TCAAAGTCAGCCATCAGCAAGCCAACATGTGTCAAAGCTCTAAAACCTGAAAAAGTGAAATTAGCTGCCT  
 GTGGAAGGAACACACCTGGTGTCAACAGAAGGAGGCAATGTATGCAACTGGTGAAAATAATGAAGG  
 ACAGTTGGGGCTTGGTGACACCGAAGAAAGAAACACTTTTCATGTAATTAGCTTTTTTACATCCGAGCAT  
 AAGATTAAGCAGCTGTCTGCTGGATCTAATACTTCAGCTGCCCTAACTGAGGATGGAAGACTTTTTATGT  
 GGGGTGACAATCCGAAGGGCAAATTTGGTTAAAAAATGTAAGTAAATGTCTGTGTCCCTCAGCAAGTGAC  
 CATTGGGAAACCTGTCTCCTGGATCTCTTGTGGATATTACCATTAGCTTTTGTAAACAACAGATGGTGAG  
 CTATATGTGTTTGGAGAACCTGAGAATGGGAAGTTAGGTCTTCCAATCAGCTCCTGGGCAATCACAGAA  
 CACCCAGCTGGTGTCTGAAATTCGGGAGAAGGTGATCCAAGTAGCCTGTGGTGGAGAGCATACTGTGGT  
 TCTCACGGAGAATGCTGTGTATACCTTTGGGCTGGGACAATTTGGTCAGCTGGTCTTGGCACTTTTCTT  
 TTTGAACTTCAGAACCCAAAGTCATTGAGAATATTAGGGATCAAACAATAAGTTATATTTCTTGTGGAG  
 AAAATCACACAGCTTTGATAACAGATATCGGCCTTATGTATACTTTTGGAGATGGTCGCCACGAAAAATT  
 AGGACTTGGACTGGAGAATTTACCAATCACTTCATTCTACTTTGTGCTCTAATTTTTTGGAGTTTATA  
 GTTAAATTGGTTGCTTGTGGTGGATGTCACATGGTAGTTTTTGTGCTCCTCATCGTGGTGTGGCAAAAG  
 AAATTGAATTCGATGAAATAAATGATATTGCTTATCTGTGGCGACTTTTCTGCCGTATAGCAGTTTAA  
 CTAGGAAATGTACTGCAGAGGACTCTATCAGCACGTATGCGGGCAAGAGAGAGGGAGAGGTCTCCAGAT  
 TCTTTTTCAATGAGGAGAACACTACCTCCAATAGAAGGGACTCTTGGCCTTTCTGCTTGTTTTCTCCCA  
 ATTCAGCTTTCCACGATGTTCTGAGAGAAACCTCCAAGAGAGTGTCTTATCTGAACAGGACCTCATGCA  
 GCCAGAGGAACAGATTATTTGCTAGATGAAATGACCAAAGAAGCAGAGATAGATAAATCTTCAACTGTA  
 GAAAGCCTTGGAGAACTACTGATATCTTAAACATGACACACATCATGAGCCTGAATCCAATGAAAAGT  
 CATTAAAATTATCACCAGTTCAGAAACAAAAGAAACAACAATTTGGGAACTGACGCAGGATACAGC  
 TCTTACTGAAAACGATGATAGTGATGAATATGAAGAAATGTCAGAAATGAAAGAAGGAAAGCATGTAAA  
 CAACATGTGTACAAGGGATTTTCATGACGCAGCCAGCTACGACTATCGAAGCATTTTCAGATGAGGAAG  
 TAGAGATCCCAGAGGAGAAGGAAGGAGCAGAGGATTCAAAAGGAAATGGAATAGAGGAGCAAGAGGTAGA  
 AGCAAAATGAGGAAAATGTGAAGTGCATGGAGGAAGAAAGGAGAAAACAGAGATCCTATCAGATGACCTT  
 ACAGACAAAGCAGAGGATCATGAATTTTCTAAAACCTGAGGAACTAAAACCTAGAAGATGTGGATGAGGAAA  
 TTAATGCTGAAAATGTGGAAAGCAAGAAGAAAACCTGTGGGAGATGATGAAAGTGTTCCTACAGGTTATCA  
 CAGTAAAACAGAAGGAGCAGAAAGAACCAATGATGATAGCTCAGCTGAAACTATTGAAAAGAAAGAAAA  
 GCCAACCTAGAGGAACGGGCCATTTGTGAGTACAATGAAAACCCAAAAGGATACATGCTTGTATGATGCG  
 ATAGCAGTTCATTAGAAATCCTAGAAAACAGTGAACAACACCAAGCAAGACATGAAAAACAAGAA  
 GATTTTTCTGTTCAAAAGAGTCCCCTCAATAAATCAAAAAGATTGTCAAGAATAACAATGAGCCGCTCCCA  
 GAGATAAAATCCATAGGAGACCAGATCATTTTAAAAAAGTATAATAAAGATGCCGACCAGAACCACATGA  
 GTCAGAATCATCAGAATATCCCAACAATAACAGAGAGAAGATCAAAATCCTGTACAATACTA

**ACCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:** >RG220424 representing NM\_000328  
 Red=Cloning site Green=Tags(s)

```
MREPEELMPDSGAVFTFGKSKFAENNPQKFWFKNDVPVHLSGDEHSVVTGNNKLYMFGSNNWQQLGLG
SKSAISKPTCVKALKPEKVLAACGRNHTLVSTEGGNYATGGNNEGQLGLGDTEERNTFHVISFFTSEH
KIKQLSAGSNTSAALTEDGRLFMWGDNSEGQIGLKNVSNVCVPQQVTIGKPVSWISCGYYHSFVTTDGE
LYVFGEPENGLGLPNQLLGNHRTPQLVSEIPEKVIQVACGGEHTVVLTENAVYTFGLGQFGQLGLGTFL
FETSEPKVIENIRDQTI SYISCGENHTALITDIGL MYTFGDGRHGKLGLENFTNHFIPTLCSNFLRFI
VKLVACGGCHMVVFAAPHRGVAKIEFDEINDTCLSVATFLPYSSLTSGNVLQRTL SARMRRRERERSPD
SFSMRRTLPPIEGTLGLSACFLPNSVFP RCSRNLQESVLSEQDLMQPEEPDYLLDEMTKEAEIDNSSTV
ESLGETTDILNMTHIMSLNSNEKSLKLSPVQKQKKQQTIGELTQDTAL TENDDSDEYEEMSEMKEGKACK
QHVSQGIFMTQPATTIEAFSDEEVEIPEEKEGAEDSKNGIEEQEVEANEENVKVHGG RKEKTEILSDDL
TDKAEDHEFSKTEELKLEDVDEEINAENVESKKKT VGDDESVP TGYH SKTEGAERTNDDSSAETIEKKEK
ANLEERAICEYENPKGYMLDDADSSSLEILENSETTPSKDMKTKKIFL FKRVP SINQIVKNNNEPLP
EIKSIGDQIILKSDNKDADQNHMSQNHQNIPTNTERRSKSCTIL
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



**ACCN:** NM\_000328

**ORF Size:** 2445 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:**

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\\_000328.3](#)

**RefSeq Size:** 3082 bp

**RefSeq ORF:** 2448 bp

**Locus ID:** 6103

**UniProt ID:** [Q92834](#)

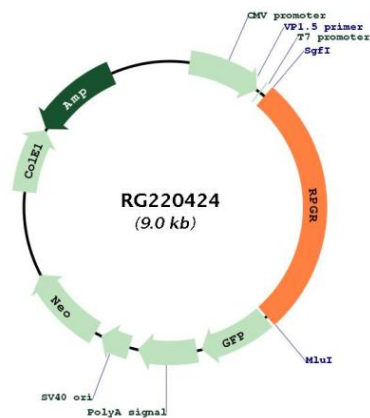
**Cytogenetics:** Xp11.4

**Domains:** RCC1

**Protein Families:** Druggable Genome

**Gene Summary:** This gene encodes a protein with a series of six RCC1-like domains (RLDs), characteristic of the highly conserved guanine nucleotide exchange factors. The encoded protein is found in the Golgi body and interacts with RPGRIP1. This protein localizes to the outer segment of rod photoreceptors and is essential for their viability. Mutations in this gene have been associated with X-linked retinitis pigmentosa (XLRP). Multiple alternatively spliced transcript variants that encode different isoforms of this gene have been reported, but the full-length nature of only some have been determined. [provided by RefSeq, Dec 2008]

## Product images:



Circular map for RG220424