

## Product datasheet for **RG211327**

### PCDHA4 (NM\_031500) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PCDHA4 (NM_031500) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PCDHA4
Synonyms:	CNR1; CNRN1; CRNR1; PCDH-ALPHA4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide  
Sequence:

>RG211327 representing NM\_031500  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGAGTTTTCTGGGAAGCGGCCAGGAATCCGGCGTCTGCTGCTTACTTCTCTCCTCGCAGCCT  
GGGAGGCAGGAACGGTCAGCTCCACTACTCGGTCTCCGAGGAGGCCAAACACGGCACCTTCGTGGGCCG  
CATCGCGCAGGACCTGGGACTGGAGCTGGCGGAGCTGGTCCCGCCCTGTTCCGGGTGGCGTCCAAGGGC  
CGCGGAGGCCCTTCTGGAGGTAATCTGCAGAATGGCATTGTTGTTGTGAATTCTCGGATCGACGGGAGG  
AGCTGTGCCGGCGGAGCGCGGAGTGCAGCATCCACCTGGAGGTGATCGTAGACAGGCCGCTGCAGGTTTT  
CCATGTGGACGTGGAGGTGAGGGACATTAACGATAACCCGCCGGTGTCCAGCAACACAAAAGAACCTG  
TCCATCGCGGAATCCAGGCCGCTGACTCTCGGTTTCCACTAGAGGGCGCCTCGGATGCAGATATCGGGG  
AGAACGCCCTGCTCACTACAGACTGAGCCAAATGAATACTTTTCTCTGGAAAAACCACCTGATGACGA  
GCTGGTAAAAGGTCTTGGGCTTATATTACGAAATCTTTAGACAGAGAAGAAGCTCCGGAGATTTTTTA  
GTGCTCACAGCCACTGATGGAGGCAAACCCGAGTTGACTGGCACCGTTACGTTACTCATCACAGTACTGG  
ATGCCAATGACAATGCCCCAGCTTTTGACAGAACCATTATAAGGTGAGATTACTAGAAAATGTTCTCAA  
TGGAACATTGGTAATTAACCTAACGCCTCAGATTTAGACGAAGGATTGAATGGGGACATTGTTTATTCA  
TTCTCAAATGATATTTCCGCAATGTGAAATCCAAGTTTACATAGATCCAATTACTGGACAAAATTATTG  
TAAAGGGATATATTGACTTTGAAGAAAGCAAATCTATGAAATATTGTAGAGGGCATTGATAAGGGACA  
GCTCCCACTTTCTGGCCATTGTAGAGTTATTGTGGAAGTAGAAGACAACAACGATAATGTCCAGATTTG  
GAATCAAGTCTTTATCACTTCCAATTAGAGAGGACGCTCCACTGGGTACAGTCAATCGCCCTGATCAGCG  
TGTCCGACAAGACATGGGTGTCAATGGGCTGGTCACTGCTCCTTGACGTCCACGTCCCTTCAAGT  
GGTGTCCACCTTCAAGAATTACTACTCGTTGGTGTGGACAGTGCCTGGACCGGAGAGCGTGTACGCC  
TATGAGCTGGTGGTGACCGCGGAGACGGGGCTCGCCTTCGCTGTGGGCCACGGCCAGTGTCTGTGG  
AGGTGGCTGATGTGAACGACAACGCTCCGGCGTTCGCGCAGCCGAGTACACAGTGTTCGTGAAGGAGAA  
CAACCCGCGGGCTGCCACATCTCACTGTGTCTGCGTGGGACGCGGACGCGCAGGAGAACGCGTGGT  
TCCTACTCGTGGTAGAGCGCGGGTAGGGGAGCGCGCTGTCGAGCTACGTTTCGGTGCATGCGGAGA  
GCGGCAAGGTGTACGCGCTGCAGCCGCTGGACCACGAGGAGCTAGAGCTGCTGCAGTTTCAGGTGACCGC  
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AACCGCCAGCACTGCTAGCGCCTCGGGCGGGTGGCACTGGTGGCGCAGTGAAGCAGCTGGTGCATGGT  
CGGTGGGTGTGGCCACGTGGTGGCAAAGGTGCGCGCGGTGGATGCTGACTCGGGCTACAACGCGTGGCT  
TTCGTACGAGCTGCAGCCGGGGACTGGTGGCGCGCATCCCCTCCGCGTGGGGCTGTACTGCGCGAG  
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ACGGCGAGCCCGCTGACGGCCACGGCCACTGTGCTGGTGTCACTTGTGGAGAGTGGACAGGCGCCAAA  
GGCCTCCTCAGGGCGTGGTGGGCGCTGTGGTCCCAGTGTGCGCTGGTGGATGTCAACGTATACCTG  
ATCATTGCCATCTGCGCGGTGTCCAGCCTTTGGTGTCTACGCTGCTGTACACCGCGCTGCGGTGCT  
CTGCGCTGCCACCGAGGGCGCTGCGCTCCGGCAAGCCACGCTGGTGTCTCCAGTGCAGTGGGGAG  
CTGGTCATACTCGCAGCAGAGGAGGCCGAGGGTGTGCTCTGGTGAAGGGCCACCCAAGACCGACCTCATG  
GCCTTACGCCCAAGTTTACCTGACTCTAGGGACAGAGAAGATCAGCTGCAGACAACCTGAGGAATCCTTTG  
CAAAGGTTAGTGTA

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

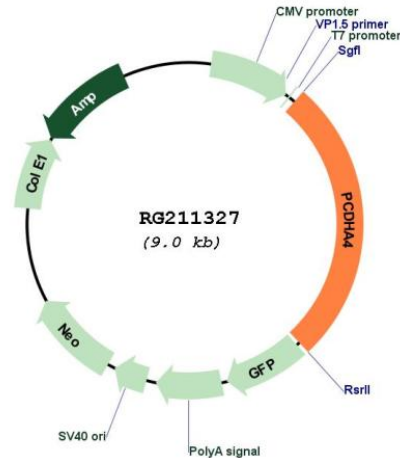
**Protein Sequence:** >RG211327 representing NM\_031500  
Red=Cloning site Green=Tags(s)

MEFSWGSQGQESRRLLLLLLLLLAWEAGNGQLHYSVSEEAKHGTFVGRIAQDLGLELAELVPRLFRVASKG  
RGGLLEVNLRNGILFVNSRIDREELCRRSAECSIHLEVIIVDRPLQVFHVDVEVRDINDNPPVFPATQKNL  
SIAESRPLDSRFPLEGASDADIGENALLTYRLSPNEYFSLEKPPDELVKGLGLILRKSLDREEAPEIFL  
VLTATDGGKPELTGTVQLLITVLDANDNAPAFDRTIYKVRLLLENVPNGTLVIKLNASDLDEGLNGDIVYS  
FSNDISPVKSKFHIDPITGQIIIVKGYIDFEESKSYEIIIVEGIDKGQLPLSGHCRVIVEVEDNNDNVPDL  
EFKSLSLPIREDAPLGTVIALISVSDKDMGVNGLVTCSLTSHVPFKLVSTFKNYSLVLDSDALDRESVSA  
YELVVTARDGGSPSLWATASVSVEVADVNDNAPAFAPQPEYTVFVKENPPGCHIFTVSAWDADAQENALV  
SYSLVERRVGERALSSYVSVHAESGKVYALQPLDHEEELLQFQVTARDAGVPLGSNVTLQVFLDEND  
NAPALLAPRAGGTGGAVSELVPWSVGVGHVVAKVRVDADSGYNWL SYELQPGTGGARIPFRVGLYTG  
ISTTRALDETDAPRHLLVVKDHGEPALTATATVLVSLVESGQAPKASSRALVGAVGPDAALVDVNVYL  
IIAICAVSLLVLTLLLYTALRCSALPTEGACAPGKPTLVCSAVGSWSYSQRRPRVCSGEGPPKTDLM  
AFSPSLPDSRDREDQLQTTEESFAKVS

SGPTRRRLE - GFP Tag - V

**Restriction Sites:** Sgfl-RsrII



**Plasmid Map:**


**ACCN:** NM\_031500

**ORF Size:** 2394 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\\_031500.3](#)

**RefSeq Size:** 2498 bp

**RefSeq ORF:** 2397 bp

**Locus ID:** 56144

**UniProt ID:** [Q9UN74](#)

**Cytogenetics:** 5q31.3

**Domains:** CA

**Protein Families:** Transmembrane

**Gene Summary:** This gene is a member of the protocadherin alpha gene cluster, one of three related gene clusters tandemly linked on chromosome five that demonstrate an unusual genomic organization similar to that of B-cell and T-cell receptor gene clusters. The alpha gene cluster is composed of 15 cadherin superfamily genes related to the mouse CNR genes and consists of 13 highly similar and 2 more distantly related coding sequences. The tandem array of 15 N-terminal exons, or variable exons, are followed by downstream C-terminal exons, or constant exons, which are shared by all genes in the cluster. The large, uninterrupted N-terminal exons each encode six cadherin ectodomains while the C-terminal exons encode the cytoplasmic domain. These neural cadherin-like cell adhesion proteins are integral plasma membrane proteins that most likely play a critical role in the establishment and function of specific cell-cell connections in the brain. Alternative splicing has been observed and additional variants have been suggested but their full-length nature has yet to be determined. [provided by RefSeq, Jul 2008]