

Product datasheet for **RG211317**

PCDHGA1 (NM_031993) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PCDHGA1 (NM_031993) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PCDHGA1
Synonyms:	PCDH-GAMMA-A1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide
Sequence:**

>RG211317 representing NM_031993
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGC**

ATGAAGATTCAGAAAAAGCTGACTGGCTGCAGCAGGCTGATGCTTCTGTCTTTCTCTGGAGCTGCTGT
 TGGAAAGCTGGGGCTGGGAATATTCAGTACTCAGTGCCGGAAGAGACAGACAAAGGTTCTTCGTAGGCAA
 CATCGCCAAGGACCTAGGGCTGCAACCCAGGAGCTGGCAGATGGCGGAGTCCGCATCGTCTCCAGAGGT
 AGGATGCCGCTTTTCGCTCTGAATCCTAGAAGTGGCAGCTTGATCACCGCGCAGGATAGACGGGAGG
 AGCTCTGCGCTCAGAGCATGCCGTGTCTCGTGAGTTTTAATATCCTTGTTGAGGATAAAATGAAGCTTTT
 TCCTGTTGAAGTAGAAATAATTGATATTAATGACAACACTCCCCAATTCAGTTAGAGGAACTGGAGTTT
 AAAATGAATGAAATAACGACTCCAGGTACCAGAATCTCATTGCCTTTTGGCAAGACCTTGATGTGGGTA
 TGAAGTCACTCCAGAGCTACCAACTCAGCTCTAACCTCATTCTCCCTGGATGTGCAACAGGGAGCCGA
 TGGGCCTCAACATCCAGAGATGGTGCTGCAGAGTCCCTTAGACAGAGAAGAAGAGCTGTCCACCACCTC
 ATCCTCAGAGCTTCTGATGGGGGTGAACAGTCCGTTACGGGACCCTCAGAAATTTACATTAGGTGGTGG
 ATGCAATGACAATCCTCCAGCATTTACTCAGGCACAATACCATAAAATGTCCCGAAAAACGTGCCGCT
 GGGTACTCAGCTGCTCATGGTAAATGCCACTGACCCTGATGAGGGAGCCAATGGGGAAGTAACGTAATCC
 TTTCACAAATGTAGACCACAGAGTGGCCAAATATTTGTTTAGATTCTTACACAGGAGAAATATCAAATA
 AAGAACCCTAGATTTTGAAGAATACAAATGTATTCAATGGAAGTTCAAGCCAGGATGGTGCGGGGCT
 CATGGCTAAAGTTAAGTACTGATCAAAGTTTTGGATGTAATGATAATGCCCGAAGTGACCATCACC
 TCTGTCAACCTGCAGTCCAGAAAACCTTCTCCTGGGACCATAATTGCTCTTATCAGTGTGCATGACC
 AGGACTCAGGAGACAATGGCTACACCACATGTTTCATTCTGGAATTTACCTTTAAATGGAAAAGTT
 AGTTGATAATTATTACCGTTTAGTGACTGAAAGAACAACACTGGACAGAGAATTATCTCTGGGTACAACATC
 ACAATAACAGCAATAGACCAAGGAACCTCAGCTCTATCTACTGAAACTCACATTTCACTACTAGTGACAG
 ATATCAATGACAACCTCCAGTCTTCCATCAGGACTCCTACTCTGCCTACATTCCCGAAAACAACCCAG
 AGGAGCTCCATCTTCTGTGAGGGGCCACGACTTGACAGCAATGAGAATGCACAAATCACTTACTCC
 CTAATAGAGGACACTATCCAGGGGGCACCCCTATCTGCCTACCTCTCCATCAACTCCGACACTGGGGTCC
 TGTATGCGCTGCGATCCTTCGACTATGAGCAGTCCGGGACATGCAACTGAAAGTGATGGCGCGGGACAG
 TGGGGATCCGCCCTCAGCAGCAACGTGTCTCTCAGCCTATTCTGCTGGACCAGAACGACAACGCGCCC
 GAGATCCTGTACCCCGCCCTCCCAACAGATGGTTCTACCGGCGTGGAGCTGGCGCCCTCTCCGACAGC
 CCGGCTACCTGGTGACCAAGGTGGTGGCGGTGGACAGAGACTCGGGCCAGAACGCTGGCTGTCTACCG
 CCTGCTCAAGGCCAGCGAGCCGGGACTCTTCTCGGTGGGTCTGCACACGGGCGAGGTGCGCACGGCGCGA
 GCCCTGTGGACAGAGACGCGCTCAAGCAGAGTCTCGTGGTGGCCGTCCAGGACCACGGCCAGCCCCCGC
 TCTCCGCCACTGTACGCTCACCCTGGCGGTGGCCGACAGGATCTCCGACATCCTGGCCGACCTGGGCGAG
 CCTCGAGCCCTCCGCCAAACCAACGATTTCGACCTCACTCTGTACCTGGTGGTGGCGGCGCGCGGTCT
 TCCTGCGTCTTCTGGCCTTCTGTCATCGTGCTGCTGGCGCACAGGCTGCGGCGCTGGCACAAGTCACGTC
 TGCTACAGGCTTCGGGAGGCGGCTTAGCGAGCATGCCCGGTTGCACTTTGTGGGCGTGGACGGGTTTCG
 GGCTTTCTGCAGACCTATTCCACGAGGTCTCCCTCACTGCGGACTCGCGGAAGAGCCACCTGATTTTC
 CCCCAGCCCAACTATGCGGACACACTCATCAGCCAGGAGAGCTGTGAGAAAAAGGGTTTTCTATCAGCAC
 CCCAGTCTTTACTTGAAGACAAAAGGAACCTTTTCTCAGGTAACTTTTGTGATGAATGTATCAGCTA
 TCTAGAGAAAAATAATTCT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG211317 representing NM_031993
 Red=Cloning site Green=Tags(s)

MKIQQKLTGCSRLMLLCLSELLLLEAGAGNIHYSVPEETDKGSFVGNIADLGLQPQELADGGVRIVSRG
 RMPLFALNPRSGSLITARRIDREELCAQSMPCLVSNILVEDKMKLFPVEVEIIDINDNTPQFQLEEEF
 KMNEITTPGTRISLPFGQDLVGMNSLQSYQLSSNPHFSLDVQQGADGPQHPPEMVLQSPLDREEEAVVHL
 ILTASDGGEPVRSGTLRIYIQVVDANDNPPAFTQAQYHINVPENVPLGTQLLMVNATDPDEGANGEVTS
 FHNVDHRVAQIFRLDSYTGESNKEPLDFEYKMYSMQVQAQDGAGLMAKVVLKVLVDVNDNAPEVTIT
 SVTTAVPENFPPTIIALISVHDQDSDNGYTTCTIPGNLPFKLEKLVNYYRLVTERTLDRELISGYNI
 TITAIQDQTPALSTETHISLLVTDINDNSPVFHQDSYSAYIPENNPRGASIFSVRAHDLDSNENAIQITYS
 LIEDTIQGAPLSAYLSINSDTGVLALRSFDYEQFRDMLKVMARDSGDPPLSSNVSLSLFLDQNDNAP
 EILYPALPTDGGTGVELAPLSAEPGYLVTKVAVDRDSGQNAWLSYRLLKASEPGLFSVGLHTGEVTRAR
 ALLDRDALKQSLVVAVQDHGQPPLSATVTLTVAVADRIDILADLGSLEPSAKPNDSDLTYLVVAAA
 SCVFLAFVIVLLAHLRLRWHKSRLLQASGGGLASMPGSHFVGVDGVRAFLQTYSHVSLTADSRKSHLIF
 PQPNYADTLISQESCEKKGFLSAPQSLLEDKKEPFSQVNFCECISYLEKNNS

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

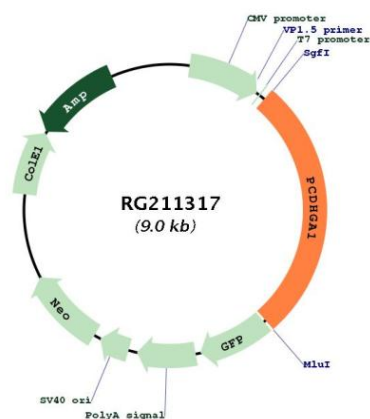
Cloning Scheme:



ACCN:	NM_031993
ORF Size:	2469 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:	<u>NM_031993.1, NP_114382.1</u>
RefSeq Size:	2472 bp
RefSeq ORF:	2472 bp
Locus ID:	56114
UniProt ID:	<u>Q9Y5H4</u>
Cytogenetics:	5q31.3
Protein Families:	Transmembrane
Gene Summary:	This gene is a member of the protocadherin gamma gene cluster, one of three related clusters tandemly linked on chromosome five. These gene clusters have an immunoglobulin-like organization, suggesting that a novel mechanism may be involved in their regulation and expression. The gamma gene cluster includes 22 genes divided into 3 subfamilies. Subfamily A contains 12 genes, subfamily B contains 7 genes and 2 pseudogenes, and the more distantly related subfamily C contains 3 genes. The tandem array of 22 large, variable region exons are followed by a constant region, containing 3 exons shared by all genes in the cluster. Each variable region exon encodes the extracellular region, which includes 6 cadherin ectodomains and a transmembrane region. The constant region exons encode the common cytoplasmic region. These neural cadherin-like cell adhesion proteins most likely play a critical role in the establishment and function of specific cell-cell connections in the brain. Alternative splicing has been described for the gamma cluster genes. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG211317