

## Product datasheet for **RG223822**

### **PCDHGA4 (NM\_032053) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PCDHGA4 (NM_032053) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PCDHGA4
Synonyms:	PCDH-GAMMA-A4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide  
Sequence:

>RG223822 representing NM\_032053  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGGCGCCTCCTGCTCGCCAGACCACCCGGCTGCTCCAGATCTGCCTTCTCCTGGGGTTCTGG  
 TGGAAATCAGGGCCGAACAGATTCTACTCGGTGTTTGAGGAGCAGGAAGAAGGCTCAGTGGTGGCAA  
 CATCGCCAAGGACCTGGGGTTGGCGCCCGGGAGCTGGCGGAGCGCGGAGTCCGCATCGTCTCCAGAGT  
 AGGACGCAGCTTTTCGCCCTGAACCCGCGCAGCGGCACCTTGGTCACCGCGGTAGGATAGACAGGGAGG  
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 GCGGGTAGAGGTGAAATAATCGATGTTAATGATAACCCACCCAGTTTTGGGACAGAACAGAGGGAAATA  
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 CACTGAAATA

**ACGGT**ACGCGGCCGCTCGAG – GFP Tag – GTTAA

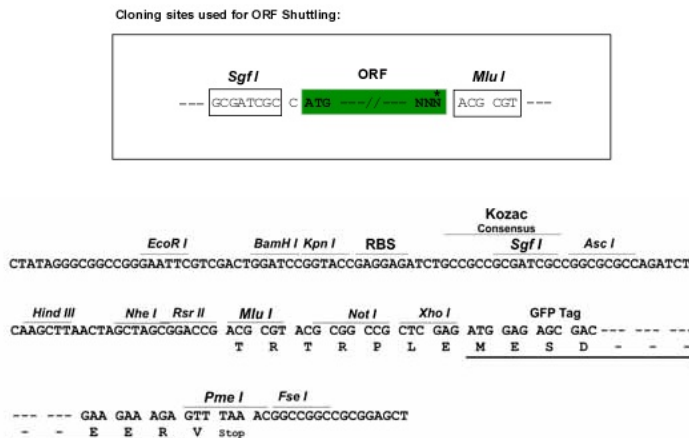
Protein Sequence: >RG223822 representing NM\_032053  
 Red=Cloning site Green=Tags(s)

MAAPPARPDHTRLLQICLLLGVLVEIRAEQILYSVFEEQEEGSSVVGNIKDLGLAPRELAERGVRIVSRG  
 RTQLFALNPRSGTLVTAGRIDREELCDRSPNCVTNLEILLEDTVKILRVEVEIIDVNDNPPSFGTEQREI  
 KVAENENPGARFPLPEAFDPDVGVNSLQGYQLNSNGYFSLDVQSGADGIKYPELVLERALDREEEAVHHL  
 VLTAFDGGDPVRSGTARILIIILVDTNDNAPVFTQPEYHVSRENVPVGTTRLLTVKATDPDEGANGDVTYS  
 FRKVRDKISQLFQLNSLSGDITILGGLDYEDSGFYDIDVEAHDGPGLRARSKVLVTVLDENDNAPEVTVT  
 SLTSSVQESSSPGTVIALFNVHDSDSGGNGLVTC SIPDNL PFTLEKTYGNYRLLTHRTL DREEVSEYNI  
 TVTATDQGT PPLSTETHISLQVMDINDNPPTFPHASYSAYIPENNPRGASILSMTAQDPDSGDNARITYS  
 LAEDTFQGAPLSSYVSINSNTGILYALCSFDYEQFRDLQLLMTASDSGDPPLSSNVSLSLFVLDQNDNVP  
 EILYPTFPDGTGVELAPRSADSGYLVTKVVAVDRDSGQNAWLSYLLKSSEPLFAVGLHTGEVRTAR  
 ALLDRDALKQRLVVVVQDHGQPPLSATVTLTVAVADSI PDVLADL GSKLPSADPDDSGLTLYL VVAVAAV  
 SCVFLAFVTLLALKLRWHKSRLLHAEGSRLAGVPASHFVGVDGVRAFLQTYSHEVSLTADSRKSHLIF  
 SQPSYADTLISRESCEKSEPLLITQDLLETGDPNLQVSQSYNRSYHTEI

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI

Cloning Scheme:



- ACCN:** NM\_032053
- ORF Size:** 2460 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\\_032053.1](#), [NP\\_114442.1](#)

**RefSeq Size:** 2529 bp

**RefSeq ORF:** 2556 bp

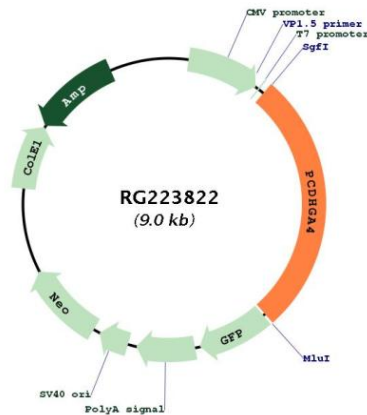
**Locus ID:** 56111

**UniProt ID:** [Q9Y5G9](#)

**Cytogenetics:** 5q31.3

**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 RG223822