

## Product datasheet for **RC223822**

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

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PCDHGA4 (NM_032053) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PCDHGA4
Synonyms:	PCDH-GAMMA-A4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>RC223822 representing NM\_032053  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGGCGCCTCCTGCTCGCCAGACCACCCGGCTGCTCCAGATCTGCCTTCTCCTGGGGTTCTGG  
 TGGAAATCAGGGCCGAACAGATTCTACTCGGTGTTTGGAGAGCAGGAAGAAGGCTCAGTGGTGGGCAA  
 CATCGCCAAGGACCTGGGGTTGGCGCCCGGGAGCTGGCGGAGCGCGGAGTCCGCATCGTCTCCAGAGGT  
 AGGACGCAGCTTTTCGCCCTGAACCCGCGCAGCGGCACCTTGGTCACCGCGGGTAGGATAGACAGGGAGG  
 AGCTCTGCGACAGATCTCCAAACTGTGTGACAAACCTGGAGATTCTTCTAGAAGATACAGTGAAGATTTT  
 GCGGGTAGAGGTGAAATAATCGATGTTAATGATAACCCACCCAGTTTTGGGACAGAACAGAGGGAAATA  
 AAAGTTGCTGAAAATGAAAATCCTGGGGCAAGATTTCTCTTCTGAAGCTTTTGTATCCGGATGTAGGTG  
 TAAACTCCCTGCAGGGTTACCAGCTCAACTCAAACGGTACTTTTCCCTGGACGTGCAAAGTGGGCGCA  
 TGGGATTAAGTACCCAGAGCTGGTGTGGAACGCGCTCTAGATCGCGAGGAAGAGCGGTTCCACCACCTC  
 GTTCTCACGGCCTTCGATGGAGGTGACCCGGTTCGCTCTGGCACTGCCAGGATTCTCATAACTTGTGG  
 ATACCAACGATAATGCTCCCGTGTTCACCTCAGCCCGAGTACCACGTAAGTGTTCGTGAGAACGTTCTGT  
 AGGCACTCGGCTACTCACCGTAAAAGCCACTGATCCAGATGAAGGAGCCAATGGAGACGTGACGTATTCT  
 TTCCGAAAGTAAGAGACAAAATATCACAGCTATTTCAAGTTGAATTTCTCTGAGTGGGGATATAACAATAT  
 TGGGGGGTCTAGATTATGAGGACTCTGGATTCTATGACATAGATGTAGAAGCCATGATGGGCGTGGTCT  
 CCGAGCTAGAAGCAAGGTACTGGTGACAGTTCTGGATGAAAATGACAACGCCAGAAAGTACAGTTACA  
 TCTCTCACAGCTCAGTCCAGGAATCTTCTTCCCGGGTACAGTAATTGCACTTTTCAACGTGATGACA  
 GTGACTCAGGAGGAAATGGCCTAGTCACATGTTCTATTCCAGATAATCTGCCATTACACTTGAAGAACG  
 CTATGGAATTATTATCGGTTGTTGACACACAGAACACTGGACAGGGAAGAAGTCTCAGAATATAACATC  
 ACTGTAAGTCCACTGACCAGGGAACCTCCTCACTGTCTACAGAACTCATATTTCACTGCAAGTATGG  
 ACATCAATGACAACCCACCCACTTTCCCTCATGCTTCTACTCTGCTTACATTCTGAAAACAACCCAG  
 AGGAGCCTCCATCTTATCTATGACTGCTCAAGACCCTGACAGTGGTGACAATGCCGAATCACTTACTCC  
 CTGGCCGAAGACACCTTCCAGGGTGCACCTCTGCTCCTATGTCTCCATCAACTCCAATACAGGGATCC  
 TATATGCTCTTTGCTCCTCGACTATGAGCAGTTAGAGACCTGCAGCTGCTGATGACAGCCAGTGACAG  
 TGGAGACCCTCCACTCAGCAGCAATGTGCTACTGAGCCTCTTTGTGCTGGACCAGAACGACAATGTCCT  
 GAGATCCTGTACCCACCTTCCCTACTGATGGCTCCACTGGTGTGGAGCTGGCACCCGCTCCGCAGATT  
 CCGGCTACCTGGTGACCAAAGTGGTGGCAGTGGACAGAGACTCAGGTGAGAATGCCTGGCTGCCTACAG  
 CCTACTCAAGTCCAGCGAGCCGGGACTATTTGCAGTGGGGCTGCACACAGGCGAGGTGCGCACCCGACGG  
 GCCCTGTGGACAGAGACGCGCTCAAGCAGAGGCTTGTAGTGGTCCAGGACCATGGCCAGCCCCCTC  
 TCTCGCCACCGTCACACTCACTGTGGCTGTGGCCGACAGCATCCAGATGTCCTGGCTGACTTGGGCGAG  
 CCTCAAGCCTTACAGCAGACCCAGACGACTCGGGCCTCACACTCTATCTCGTGGTGGCAGTGGCCGCTGTC  
 TCCTGCGTCTTCTGGCTTTTGTACGGTGTGCTAGCACTCAAGCTGAGACGCTGGCACAAGTACAGCC  
 TGCTTACGCTGAAGGCAGCAGGTTGGCAGTGTGCTGCCTCGCACTTTGTGGGCGTGGACGGGGTTCCG  
 GGCTTTCTGCAGACCTATCCACGAGGTCTCCCTCACCGCGGACTCGCGGAAGAGTCACTGATCTTC  
 TCCCAACCCAGCTATGCAGACACGCTCATCAGCCGGGAGAGTTGTGAGAAAAGCGAGCCTCTTCTGATAA  
 CTCAGGATTTACTGAAACAAAAGGAGACCCTAATCTTCAGTGAGTCAATCTTATAATAGATCATACCA  
 CACTGAAATA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC223822 representing NM\_032053  
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MAAPPARPDHTRLLQICLLLGVLVEIRAEQILYSVFEEQEEGSSVVGNIKDLGLAPRELAERGVRIVSRG  
 RTQLFALNPRSGTLVTAGRIDREELCDRSPNCVTNLEILLEDTVKILRVEVEIIDVNDNPPSFGTEQREI  
 KVAENENPGARFPLPEAFDPDVGVNSLQGYQLNSNGYFSLDVQSGADGIKYPELVLERALDREEEAVHHL  
 VLTAFDGGDPVRSGTARILIIILVDTNDNAPVFTQPEYHVSRENVPVGTROLLTKATDPDEGANGDVTYS  
 FRKVRDKISQLFQLNSLSGDITILGGLDYEDSGFYDIDVEAHDGPGLRARSKVLVTVLDENDNAPEVTVT  
 SLTSSVQESSSPGTVIALFNVHSDSDGGNGLVTC SIPDNL PFTLEKTYGNYRLLTHRTL DREEVSEYNI  
 TVTATDQGTPLSTETHISLQVMDINDNPPTFPHASYSAYIPENNPRGASILSMTAQDPDSDGNARITYS  
 LAEDTFQGAPLSSYVSINSNTGILYALCSFDYEQFRDLQLLMTASDSDGPPLSSNVSLSLFVLDQNDNVP  
 EILYPTFPTDGSTGVELAPRSADSGYLVTKVAVDRDSGQNAWLSYLLKSSEPLFAVGLHTGEVRTAR  
 ALLDRDALKQRLVVVVQDHGQPPLSATVTLTVAVADSI PDVLADL GSKLP SADPDD SGLTLYLVVAVAAV  
 SCVFLAFVTLLALKLRWHKSRLHAEGSRLAGVPASHFVGVDFVRAFLQTYSHEVSLTADSRKSHLIF  
 SQPSYADTLISRESCEKSEPLLITQDLLETGDPNLQVSQSYNRSYHTEI

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

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

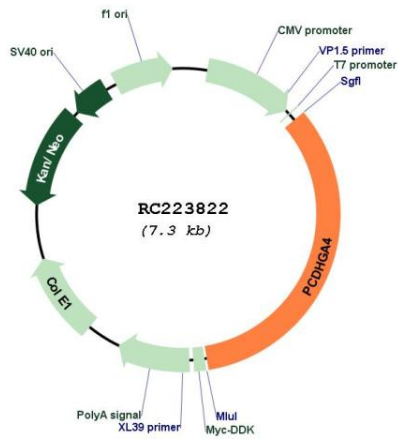
**UniProt ID:** [Q9Y5G9](#)

**Cytogenetics:** 5q31.3

**MW:** 86.1 kDa

**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 RC223822