

Product datasheet for **RC210863**

PCDHGA2 (NM_032009) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PCDHGA2 (NM_032009) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PCDHGA2
Synonyms:	PCDH-GAMMA-A2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>RC210863 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGGCGGCTCTGCAAAAGTTGCCACACTGCAGAAAGCTGGTCTGCTGTGCTTCTTTTGGCGACCTGT
GGGAGGCCAGGGCCGGGCAGATTTCGCTATTCTGTGCGGGAAGAGATCGACAGAGGCTCCTTCGTAGGCAA
CATCGCCAAGGACTTGGGTTTGGAGCCCTGGCACTGGCAGAGCAGGGAGTCCGCATCGTCTCCAGAGGT
AGGTCCCAGCTCTTTGCTCTGAACCCGGAAGCGGCAGCTTGGTCACTGCGAACAGGATAGACGGGAGG
AGCTCTGCGCTCAGAGCGCACCTGTCTGTTGAATTTTAACTTCTGCTGGAGGATAAATTGACTATTTA
TTCAGTAGAGGTGAAATAACAGATATTAACGATAATGCCCTCGCTTTGGAGTAGAGGAACTGGAGCTA
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AGAACGCCCTTCAGAAGTACGCACTCAACCCAAATGACCACTTCTCCCTGGACGTGCGAAGAGGAGCTGA
TGGGAACAAGTACCCAGAAGTGGTCTGGAGCGCTCTCTGGACCCGAGGAAGAGGCTGTTCCACCACCTC
GTTCTCGTGGCTTCTGATGGGGTGACCCAGTGCATCTGGCACCTCCCGCATCTGCGTGAAGGTCTCGG
ATGCGAACGACAATGCGCCTGTTTTACACAGCCCGAGTACCGCATAAGCATTCCGGAGAATACGCTCGT
GGGCACCCGGATACTCACGGTGACCGCCACTGACGCAGATGAGGGCTACTACGCTCAAGTGGTATATTTT
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TCTGCTACTAGCTCAGTTTCTGAAGACTCTCTCCAGGAACCATAAATGGGCTTTTTAATGTACATGATA
GAGACTCTGGGCAGAACGCATTCACCACTGTTCACTCCCGAGGATCTCTTTTTAAGTTAGAAAAGCT
AGTAGACAATTACTACCGACTGGTTACAACAGAGCCCTTGACAGGGAACAGTTTTTCCTTTTACAACATC
ACTCTAACCGCTAAAGATGGAGGGAACCCCTCCCTGTCCACGGATGCTCACATTTTGTCCAGGTGGCAG
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AGGAGCCTCTGTCTTCTCAGTGACGGCCATGACCCCGACAGCAACGACAATGCTCATGTAACCTACTCT
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TCTATGCACTGCGCTCCTTTGATTATGAGCAGTTGCGAGACTTGAAGTGTGGGTGATAGCGCGGACAG
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CCGGCTACCTGGTGACCAAGGTGGTGGCGGTGGACAGAGACTCGGGCCAGAACGCCTGGCTGTCTTACCA
CCTGCTCAAGGCCAGCGAGCCGGGACTTCTCTCGGTGGGTCTGCACACGGGCGAGGTGCGCACGGCGCGA
GCCCTGTGGACAGAGACGCGCTCAAGCAGAGCCTCGTGGTGGCCATCCAGGACCACGGCCAGCCCCCTC
TCTCCGCCACTGTACGCTCACCGTGGCCGTGGCCGACAGGATCCCCGACATCCTGGCCGACCTGGGCGA
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TGCTGCAGGCTTCAGGAGGCAGCTTACAGGCAATGCAGAGCTCGCACTTTGTGGGCGTGGACGGGTTCCG
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CCCCAGCCCAACTATGCGGACACGCTCATCAGCCAGGAGACTGTGAGAAAAAGGATTTTTTATCAGCGC
CTCAATCTCTACTCGAAGAAGAAAGAGAAGAAACGTTTTCTCAGGTAATCTATCTTTTACAACATACGT
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC210863 protein sequence
Red=Cloning site Green=Tags(s)

MAALQKLPHCRKLVLLCFLLATLWEARAGQIRYSVREEIDRGSFVGNIAKDLGLEPLALAEQGVRIVSRG
RSQLFALNPRSGSLVTANRIDREELCAQSAPCLLNFNILLEDKLTIIYSVEVEITDINDNAPRFGVEEEL
KISETTTTPGFRIPLKNAHDADVGENALQKYALNPNDHFSLDVRRGADGNKYPELVLERSLDREEEAVHHL
VLVASDGGDPVLSGTSRICKVKVLDANDNAPVFTQPEYRISIPENTLVGTRILTVTATDADEGYAQQVYF
LEKSPGETSEVFELKSTSGELTIIKLDYEDATFHEIDIEAQDGPGLLTRAKVIVTVLDVNDNAPEFYMT
SATSSVSEDSLPGTIIGLNFVHDRDSGQNAFTTCSLPEDLPFKLEKSVDNYRRLVTRALDREQFSFYNI
TLTAKDGGNPSLSTDAHILLQVADINDNAPAFSRTSYSTYIPENNPRGASVFSVTAHDPDSNDNAHVITYS
FAEDTVQGAPLSSYISINSDTGVLALRSFDYEQLRDLQVWVIARDSGNPPLSSNVSLSLFVLDQNDNAP
EILYPAFPTDGGSTGVELAPRSAEPGYLVTKVAVDRDSGQNAWLSYHLLKASEPGLFSVGLHTGEVRTAR
ALLDRDALKQSLVVAIQDHGQPPLSATVTLTVAVADRIPIADLGSLEPSAIPNDSDLTYLVVAVAAV
SCVFLAFVIVLLAHLRRLRWHKSRLQASGGSLTGMQSSHVFGVDGVRAFLQTYSHVSLTADSRKSHLIF
PQPNYADTLISQESCEKKDFLSAPQSLLEEEEREETFSSQVIYLFTTYVLASLLK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6692_a12.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:



ACCN: NM_032009

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: [NM_032009.3](#)

RefSeq Size: 2735 bp

RefSeq ORF: 2472 bp

Locus ID: 56113

UniProt ID: [Q9Y5H1](#)

Cytogenetics: 5q31.3

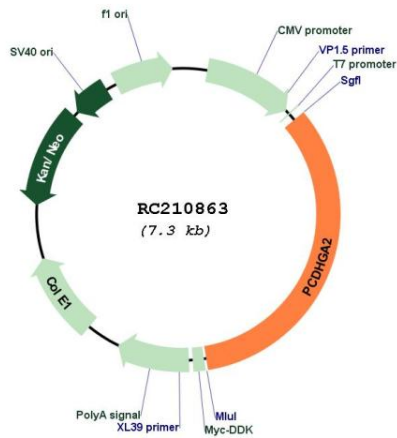
Domains: CA

Protein Families: Transmembrane

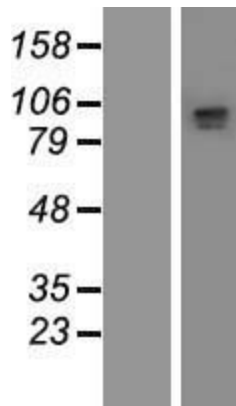
MW: 90.3 kDa

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]

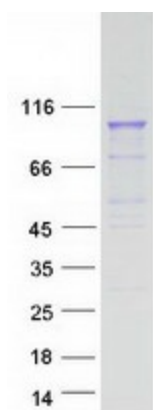
Product images:



Circular map for RC210863



Western blot validation of overexpression lysate (Cat# [LY410404]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210863 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PCDHGA2 protein (Cat# [TP310863]). The protein was produced from HEK293T cells transfected with PCDHGA2 cDNA clone (Cat# RC210863) using MegaTran 2.0 (Cat# [TT210002]).