

Product datasheet for **SC124785**

PCDHA6 (NM_031849) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PCDHA6 (NM_031849) Human Untagged Clone
Tag:	Tag Free
Symbol:	PCDHA6
Synonyms:	CNR2; CNRN2; CNRS2; CRNR2; PCDH-ALPHA6
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >NCBI ORF sequence for NM_031849, the custom clone sequence may differ by one or more nucleotides

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ATGGTGTTTACCCCGGAGGATAGATTGGGAAAGCAATGTCTGCTCCTCCCGTTCTGCTCCTCGCAGCCT
GGAAGGTGGGGAGCGGCCAGCTCCACTACTCCGTACCCGAGGAGGCCAAACACGGCACCTTCGTGGGCCG
GATCGCGCAGGACCTGGGGCTGGAGCTGGCGGAGCTGGTGCCCGCCTGTTCCAGGATGGCTCCTCAAAGAC
CGCGAGGACCTTCTGGAGGTAAATCTGCAGAATGGCATTGTTGTTGTGAATTCTCGGATCGACCGCGAGG
AGCTGTGCGGGCGGAGCGCGGAGTGCAGCATCCACCTGGAGGTGATCGTGGACAGGCCGCTGCAGGTTTT
CCATGTGGACGTGGAGGTGAGGGACATTAACGACAACCCGCCCTTGTCCCGGTAGAGGAACAAAGAGTG
CTGATTTACGAATCTAGGCTGCCAGATTCTGTGTTTCCACTGGAGGGCGCGTCCGATGCAGATGTTGGCT
CAAATTCATCTAACCTATAAACTCAGTTCTAGCGAATACTTCGGGCTAGATGTGAAAAAAACAGTGA
TGACAATAACAAATTGGGCTCTTATTAAGAAATCCTTGGACAGAGAGGAAGCTCCTGCACACAATTA
TTCTGACAGCCACAGATGGGGGCAAACCTGAGCTCACAGGCACTGTTCCAGCTGTGGTGCAGTGTGG
ATGTGAATGATAATGCTCCCACTTTCGAACAGTCTGAATACGAAGTAAGAATATTCGAAAATGCAGACAA
CGGAACAACAGTTATCAGACTGAATGCTTCTGATCGGGATGAAGGAGCGAATGGGGCAATTCATATTCT
TTAATAGCCTTGTTCAGCCATGGTTATTGACCACTTTCAGCATAGATCGAAATACGGGAGAAAATAGTGA
TTCGGGGTAATTTGGATTTGAACAAGAAAACCTATACAAAATCCTCATTGACGCCACGGACAAAAGGCCA
TCCTCCCATGGCGGGTCAATGACCCGTTTTAGTGAGAAATTTGGATAAAAATGATAACGTCCTGAGATA
GCACTGACTTCCTTATCCTTGCCTGTACGTGAAGACGCTCAATTTGGTACTGTATCGCCCTAATTAGCG
TGAACGACCTCGATTCAAGTCCAACGGGCAAGTGAAGTCTCGCTGACGCTCACGTCCCTTTCAAGCT
GGTGTCCACCTTCAAGAATTACTACTCGTTGGTGTGGACAGTGCCTGGACCGGAGAGCGTGTCTGGCC
TATGAGTTGGTGGTAACCGCGCGGGAGCGGGGCTCGCCTTCGCTGTGGGCCACCGCCAGCTTGTCTGTGG
AGGTGGCCGACATGAATGACAATGCTCCGGCGTTTCGCGCAGCCCGAGTACACAGTGTTCGTGAAGGAGAA
CAACCCGCGGGGCTGCCACATCTTCACGGTGTCTGCGCGAGACGCGGACGCGCAGGAGAACGCGCTGGTG
TCCTACTCGTGGTGGAGCGCGGGTGGGCGAGCGCGCTTGTGAGCTACATTTCCGGTGCACGCGGAGA
GCGGCAAGGTGTACGCGCTGCAGCCGCTGGACCACGAGGAGCTAGAGCTGCTGCAGTTTCAGCCACGACA
GCCCAACCCTGACTGGCCTTACTCTGCCTCCCTGAGAGCAGGCATGCACAGCTCTGTGCACCTAGAGGAG
GCTGGCATTCTACGGCTGGTCCAGGAGGGCTGATCAGCAGTGGCCAACAGTATCCAGTGAACACCAG
AACCAGAGGCAGGAGAAGTGTCCCCTCCAGTCGGTGCGGGTGTCAACAGCAACAGCTGGACCTTTAATA
CGGACCAGGCAACCCCAACAATCCGGTCCCGGTGAGTTGCCCGACAAATTCATTATCCCAGGATCTCCT
GCAATCATCTCCATCCGGCAGGAGCCTACTAACAGCCAAATTGACAAAAGTGACTTCATAACCTTCGGCA
AAAAGGAGGAGACCAAGAAAAAGAAAAAGAAAGGGTAACAAGACCAGGAGAAAAAGAGAAAGG
GAACAGCACGACTGACAACAGTGACCAGTGA
    
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5' Read Nucleotide Sequence:	>OriGene 5' read for NM_031849 unedited CGGCCGCGACATTCGCACGAGGGCGGACGCAGAAGAAAGGATTAATAAATCCGGAACAT ACAGTATTTTATCTTTATGCGGAAGATCTTCTAATGGAATAAAAACCAGAGGATTTTGAC ATGGTGTTTACCCCGGAGGATAGATTGGGAAAGCAATGTCTGCTCCTCCCGCTTCTGCTC CTCGCAGCCTGGAAGGTGGGAGCGGCCAGCTCCACTACTCCGTACCCGAGGAGGCCAAA CACGGCACCTTCGTGGGCCGGATCGCGCAGGACCTGGGGCTGGAGCTGGCGGAGCTGGTG CCGCGCCTGTTTCAGGATGGCCTCAAAGACCCGAGGACCTTCTGGAGGTAATCTGCAG AATGGCATTTTGTGTTGTGAATTCTCGGATCGACCGCGAGGAGCTGTGCGGGCGGAGCGCG GAGTGCAGCATCCACCTGGAGGTGATCGTGGACAGGCCGCTGCAGTTTTCCATGTGGAC GTGGAGGTGAGGGACATTAACGACAACCCGCCCTTGTCCCGGTAGAGGAACAAAGAGTG CTGATTTAGAATCTAGGCTGCAGATTCTGTGTTTCCACTGAGGGCGCGTNCATGCCAAAT GTTGGCTCAAATTCATCTTACCTATAAACTAGTTCTACGAATACTTCGGCTTAGATGTGA AATAAACAGTGATGACAATAACAAATGGGGCTCTATAAAAAAATCTTTGAAGAAAAGAAA CTCTGCCACACTTATTCTGACAGCCAAATGGGGAAACTGACTACAGACTGTAACGTGG ACAAGNGGGGGGGGAAAAAAGCCCACTTTCAACGCTGTTCCAATAAAATTTAAAGG CAAACGGACACATTTAACATGTTTTTTTTNAAAAAACAAGGGGAATCTTTTTTAAACCG TGCCCGGGGTGGACCTTAAAAAAGAAAAAAGGGGGGA
Restriction Sites:	NotI-NotI
ACCN:	NM_031849
Insert Size:	4500 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<ol style="list-style-type: none"> 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_031849.1</u> , <u>NP_114037.1</u>
RefSeq Size:	4495 bp
RefSeq ORF:	2061 bp
Locus ID:	56142
UniProt ID:	<u>Q9UN73</u>
Cytogenetics:	5q31.3
Domains:	CA

Protein Families: Secreted Protein, 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]

Transcript Variant: This variant (3) utilizes an alternative splice donor site that truncates exon 1. This shortest isoform (3) lacks the transmembrane region and has four complete and one partial cadherin domain. **CCDS Note:** A downstream start codon is annotated for this CCDS representation because its use is more consistent with the presence of an N-terminal signal peptide in the protein, which is known to contain extracellular cadherin domains. However, it should be noted that an alternative upstream start codon exists, which would result in a protein that is 9 aa longer at the N-terminus and is less likely to contain a signal peptide. The upstream start codon has a weak Kozak signal, so it is possible that leaky scanning by ribosomes will allow the use of the downstream start codon. There is no experimental evidence indicating which start codon is used in vivo.