

## Product datasheet for **SC314780**

### PCDHA2 (NM\_031495) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PCDHA2 (NM_031495) Human Untagged Clone
Tag:	Tag Free
Symbol:	PCDHA2
Synonyms:	PCDH-ALPHA2
Vector:	<u>pCMV6 series</u>



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**Fully Sequenced ORF:** >NCBI ORF sequence for NM\_031495, the custom clone sequence may differ by one or more nucleotides

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ATGGCGTCTTCTATCAGAAGGGGCCGAGGGCCTGGACACGGCTGCTCTCGTTCTGCTC
CTCGCAGCCTGGGAGGTGGGAGCGGCCAGCTCCGCTACTCCGTCGCCGAGGAGGCCAAA
CACGGCACCTTCGTGGGCCGCATCGCGCAGGACCTGGGGCTGGAGCTGGAGGAGCTGGTG
CCGCGCCTGTTCCGGGTGGCGTCCAAAAGACACGGGGACCTTCTGGAGGTAATATGCAG
AATGGCATTTTTGTGTTGTAATTCTCGGATCGACCGGGAGGAGCTGTGCGGGCGGAGCGCG
GAATGTAGCATCCACGTGGAGGTGATCGTGGACAGGCCGCTGCAGGTTTTCCATGTGAA
GTGGAGGTGAAGGACATTAACGACAACCCGCAATATTTCCAATGACAGTAAAGACTATC
CGGTTTTCCGAATCAAGGCTGCTTGATTCTCGGTTTCTCTAGAGGGAGCATCTGATGCA
GATATAGGAGTAAATGCTCTTCTCTCTACAAGCTCAGCTCCAGTGAGTTTTTCTTCTTA
GATATACAGGCAAATGATGAACTAAGCGAATCTTTGTCTCTCGTGTGGGAAATCGCTG
GACAGAGAGGAACTGCTGAGGTTAATTTGTTACTGGTGGCTACTGATGGGGCAAACCT
GAGCTCACGGCACCGTTCAAATACTTATTAAGGTATTAGATGTAATGACAATGAACCA
ACTTTTGCCCAATCAGTTTACAAGTAAAATTGTTAGAGAATACGGCAAATGGGACCTTA
GTGGTTAAGTTAAACGCTTCTGATGCAGATGAAGGACCGAACAGCGAGATTGTGTATTCA
CTCGGTAGTGATGTGCCTCCACTATACAGACTAAGTTTACCATAGATCCCATCTCAGGG
GAAATCAGAACTAAGGAAAATTAGATTATGAAGAAGCAAAGTCTACGAGATTCAGGTC
ACTGCAACTGACAAAGGAACCCCTTCAATGTCAGGACATTGTAATAATTTTCAATAAACTT
GTGGACATCAATGATAACACACCAGAAGTCTCAATAACGTCCTCTCACTTCCCATCTCA
GAGAACGCTTCCCTGGGCACTGTATTGCTCTCATCACGGTGTGCGGATCGCGACTCTGGT
ACGAATGGACATGTCACCTGCTCCCTGACGCCCCACGTCCTTTCAAGCTGGTGTCCACC
TTCAAGAATTACTACTCGTTGGTGTGGACAGCGCCCTGGACCGCGAGAGCGGTGCAGCC
TATGAGCTGGTGGTGACCGCACGGGACGGGGCTCGCCTTCACTGTGGGCCACCACGAGC
GTGTCCATCGAGGTGGCCGACGTGAACGACAACGCGCCGCGGTTTCGCACAGCCTGAGTAC
ACAGTATTCTGTAAGGAGAAACAACCCGCGGGCTGCCACATCTTACGCGTGTGAGCGTGG
GATGCGGACGCGCAGGAGAACGCGCTGGTGTCTACTCGTGGTGGAGCGCGGGTGGGC
GAGCGCGCTTGTGAGCTACGTTTCCGGTGCACGCGGAGAGCGGCAAGGTGTACGCGCTG
CAGCCGCTGGACCAGGAAAGTGGAGCTGCTGCAGTTCCAGGTGAGCGCGGGATGCG
GGCGTGCCGCTCTGGGACGCAACGTGACGCTGCAGGTGTTCTGCTGGACGAGAACGAC
AACGCGCCGGCACTGTTGGCGCCTAGGGCTGGCACCGCTGCTGGCGCAGTGAGTGAGCTG
GTGCCGTGGTCCGTTGGTGCAGGGCACGTGGTGGCGAAGGTGCGCGCAGTGGACGCTGAC
TCAAGGCTACAACGCGTGGCTTTCGTACGAGCTTCACTGGGTAAGTGGCAGCGCTCGCATC
CCGTTCCGCGTGGGGCTATACACGGGTGAGATCAGCACGACAGTGCCTAGACGAGGCT
GACTCCCTCAGACCCGCTACTCGTGTGGTGAAGGACCACGGCGAACCAGCGTTGACA
GCCACGGCCACCGTGTAGTGTGTTGGTGGAAAGTGGCCAGGCACCCAAAGGCCTCGTGC
CGGGCGTGGTGGGCGCCGCGGGCTCAGAGGCTACGCTGGTGGATGTCAACGTGTACCTG
ATCATCGCCATCTGCGCGGTATCCAGCCTGTTGGTGTCTACGGTGTGCTGTACTACTGCG
CTGCGGTGCTCGGTGCCACCCACCGAGGGTGGCGCGCGCCAGGAAAGCCACGCTGGTG
TGCTCCAGCGCCGTGGGAGCTGGTCTTACTCGCAGCAGAGGCGGCAAGGGTGTGCTCT
GGGGAGGACCCCCCAAGACGGACCTCATGGCCTTCAAGCCTAGCTTATCTCAAGGTCCA
GACTCCGAGAAAGAGAAACAGCTCTCAGAATCAGAATACGTAGGAAAGGTGAGTCTTTTA
CTTTTTCTTGCCAATTCTAAAATTGTTCTTTTTAAAAAATTCTATATGATTTCTACTAGT
TATTTAGATTCA
    
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**Restriction Sites:** Please inquire  
**ACCN:** NM\_031495

<b>OTI Disclaimer:</b>	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).
<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u><a href="#">NM_031495.1</a></u> , <u><a href="#">NP_113683.1</a></u>
<b>RefSeq Size:</b>	2619 bp
<b>RefSeq ORF:</b>	2475 bp
<b>Locus ID:</b>	56146
<b>UniProt ID:</b>	<u><a href="#">Q9Y5H9</a></u>
<b>Cytogenetics:</b>	5q31.3
<b>Protein Families:</b>	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 (2) utilizes the large, first exon then continues into the downstream intron 1 sequence before terminating. This one-exon transcript encodes a shorter isoform (2), compared to isoform 1. This short variant is represented based on data in PMID:10380929.