

## Product datasheet for SC118525

### PCDHGC3 (NM\_002588) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PCDHGC3 (NM_002588) Human Untagged Clone
Tag:	Tag Free
Symbol:	PCDHGC3
Synonyms:	PC43; PCDH-GAMMA-C3; PCDH2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC118525 sequence for NM_002588 edited (data generated by NextGen Sequencing)

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ATGGTCCCAGAGCCTGGAGGAGCGGACTGGTAAGCACCCGGGAGGGTAGTGGGAGTTTTG
CTTCTGCCTTGGTGCCTTGAACAAGGCTTCCACGGTCATTCACTATGAGATCCCGGAGGAA
AGAGAGAAGGGTTTCGCTGTGGGCAACGTGGTCGCGAACCTTGGTTTGGATCTCGGTAGC
CTCTCAGCCCGCAGGTTCCGGGTGGTGTCTGGAGCTAGCCGAAGATTCTTTGAGGTGAAC
CGGGAGACCGGAGAGATGTTTGTGAACGACCGTCTGGATCGAGAGGAGCTGTGTGGGACA
CTGCCCTCTTGCACTGTAACCTGGAGTTGGTAGTGGAGAACCCGCTGGAGCTGTTACAGC
GTGGAAGTGGTATCCAGGACATCAACGACAACAATCCTGCTTCCCTACCCAGGAAATG
AAATTGGAGATTAGCGAGGCCGTGGCTCCGGGGACGCGCTTCCGCTCGAGAGCGCGCAC
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GCGCTTCGCGTGCAGACGCGGGAGGACAGCACCAAGTACGCCGAGCTGGTGTGGAGCGC
GCCCTGGACCGAGAACGGGAGCCTAGTCTCCAGTTAGTGCTGACGGCGTTGGACGGAGGG
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GCGCCTGTCTTCAACCAAGTCTTGTACCGGGCGCGCGTCTGGAGGATGCACCCTCCGGC
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GTCTGGGACCCCGACGCCCGCAGAATGCTCGGCTTCTTCTTCTTCTTGGAGCAAGGA

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GCTGAAACCGGGCTAGTGGGTCGCTATTTACAATAAATCGTGACAATGGCATAGTGCA  
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 GATGGGGGCACCCCGGTCTAGCCACCAACATCAGCGTGAACATATTTGTCACTGATCGC  
 AATGACAATGCCCCCAGGTCTATATCCTCGGCCAGGTGGGAGCTCGGTGGAGATGCTG  
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 GGGCACAATGCCTGGCTCTCTACAGTCTCTTGGGATCCCCTAACAGAGCCTTTTTTGC  
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 TACGGACCCAGTTACCCTGCAGCAGTGCCTGACTACCGCCAGAAATGTCTACATCCCA  
 GGCAGCAATGCCACACTGACCAACGCAGCTGGCAAGCGGGATGGCAAGGCCCCAGCAGGT  
 GGCAATGGCAACAAGAAGAAGTCCGGCAAGAAGGAGAAGAAGTAA

Clone variation with respect to NM\_002588.2  
 582 g=>c;2115 t=>c

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_002588 unedited  
 TGTAATACGACTCACTATTAGGGCGGCCGGAATTCGCACGAGGCGGACTCGGCGCCAG  
 CGCCAAAGCGTAACCCGCTGAAAGTTTCTCAGCGAAATCTCAGGGACGATCTGGACCCC  
 GCTGAGAGGAACGCTTTTTGAGTGAGATGGTCCCAGAGGCTGGAGGAGCGGACTGGTAA  
 GCACCGGGAGGGTAGTGGGAGTTTTGCTTCTGCTTGGTGCCTTGAACAAGGCTTCACCG  
 TCATTCATATGAGATCCCGGAGAAAGAGAGAAGGGTTTCGCTGTGGCAACGTGGTCG  
 CGAACCTTGTTTTGGATCTCGGTAGCCTCTCAGCCCGCAGTTCCGGTGGTGTCTGGAG  
 CTAGCCGAAGATTCTTTGAGGTGAACCGGGAGACCGGAGAGATGTTTGTGAACGACCGTC  
 TGGATCGAGAGGAGCTGTGTGGGACACTGCCCTTTGCACTGTAACCTGGAGTTGGTAG  
 TGGAGAACCCGCTGGAGCTGTTACGCGTGAAGTGGTATCCAGGACATCAACGACAACA  
 ATCCTGCTTCCCTACCCAGGAAATGAAATGGAGATTAGCGAGGCCGTGGCTCCGGGGA  
 CGCGCTTCCGCTCGAGAGCGCGCACGATCCCGATGTGGGAAGCAACTTTTACAAACCT  
 ATGAGCTGAGCCGAAATGAATACTTTGCGCTTCGCGTGCAGACGCGGGAGGACAGACCA  
 AGTACGCCGAGCTGGTGTGGAGCGCGCCTGNNACCGAGACGGGAGCCTAGTCTCCATT  
 AGTGCTGACNGCCTTGNACGGAGGGACCCAGCTCTCTTCGNCAGCCTGCCTATTACATC  
 ANGGTGTGGACGCGAATGACATGCGCCTGTCTTACCAGTCTTGNACNGGG

<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_002588 unedited NCCCTTTTGACTATGGACCGCGCCGCATNCTANGATCGAGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTCAAAAAACGTTTTATTATTTTTTTTGTGCGAAAAAAAAGCCTATAAATATAGAGTATAAACTTGCCTGAGACACAGGAAGAGGGTGGGGTGGGAGCTACGTGACTATGCGAAAAAGACGCTTATAGGAAAAGTCAGTACGGGGGAGGGGTCGCCTTAGCGCGTGGA CACAGCACAAAACACAACACGGGCCCGCCGCGGCAGATCAAGGACAGACGGTTGCGCGGA GCCCGCCGCCGTTGCCACCCGCCATCACGTAAGGACACCCGCACTACACTACTGGCT ATTCTACACCAGCCGAAAGAGGGAGGGGGCGCTACACTACTGTAAGGGCAGGTCTGGGGT TCTCTGGCAGCCCGCTGGATGGCCGGGACCCAGGGGCAAAAAGGGGGTGGGAGAAAAAG GTCTATGCACAAGGAGGCACTGGGGAACTTAACCAGGCTATGGCCACTAGGGGGCGCAC TGGGGACCTGGGCAGTGGCCTTACGGAAGAGAAACGGCACCTGGCAAGGTGAAGGACTG AGGCTTCAGGAGGGCAGGGGCCCTGTTGAAAAAGCCCCATCCTGGGCTGAGACCTTCTGT TCAATTTGGCCCTGCCCTAGCTCCCTGCCTCCCCACCCAGGGACTAAGAATGGCCTGGC TGGCCACCTTCTGCTGGGGTCCGCTGACCCTTTCACAGTGGCACCTTTGGAGTAC CCANACCCACAGAGGCCCTTTGACCTTTAAAGGGGACCCGGCTAAACCTGGTTGAGC TTCCTTGAAGTGAAGGCCAGNTAATCCTGGGGCCTGTAAGCCTACCCAACTGGCTGC CTGGCTTAA
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_002588
<b>Insert Size:</b>	4640 bp
<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>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>	<a href="#">NM_002588.2</a> , <a href="#">NP_002579.2</a>
<b>RefSeq Size:</b>	4726 bp
<b>RefSeq ORF:</b>	2805 bp
<b>Locus ID:</b>	5098
<b>UniProt ID:</b>	<a href="#">Q9UN70</a>
<b>Cytogenetics:</b>	5q31.3
<b>Domains:</b>	CA
<b>Protein Families:</b>	Transmembrane

**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]

Transcript Variant: This variant (1) includes the constant region exons and encodes the longest isoform (1).