

## Product datasheet for **SC314945**

### **PCDHGA12 (NM\_003735) Human Untagged Clone**

#### **Product data:**

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids                       |
| Product Name:             | PCDHGA12 (NM_003735) Human Untagged Clone |
| Tag:                      | Tag Free                                  |
| Symbol:                   | PCDHGA12                                  |
| Synonyms:                 | CDH21; FIB3; PCDH-GAMMA-A12               |
| Mammalian Cell Selection: | Neomycin                                  |
| Vector:                   | pCMV6-Entry (PS100001)                    |
| E. coli Selection:        | Kanamycin (25 ug/mL)                      |



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**Fully Sequenced ORF:**

&gt;SC314945 representing NM\_003735.

Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGCACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGATTCCTGCGCACTGCACCGGGACTACAAAGGGCTTGTCTGCTGGGAATCCTCCTGGGGACTCTG
TGGGAGACCGGATGCACCCAGATACGCTATTCAGTTCCGGAAGAGCTGGAGAAAGGCTCTAGGGTGGGC
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ATCAACTCCGACACTGGGCTACTGTATGCGCTGAGCTCCTTCGACTACGAGCAGTTCGAGACTTGCAA
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GGCAACAAGAAGAAGTCGGGCAAGAAGGAGAAGAAGTAA
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGCGC
  
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**Restriction Sites:**

SgfI-MluI

**ACCN:**

NM\_003735

|                               |   |
|-------------------------------|---|
| <b>Insert Size:</b>           | 2799 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>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_003735.2</a></u>  |
| <b>RefSeq Size:</b>           | 4774 bp   |
| <b>RefSeq ORF:</b>            | 2799 bp   |
| <b>Locus ID:</b>              | 26025   |
| <b>UniProt ID:</b>            | <u><a href="#">O60330</a></u>   |
| <b>Cytogenetics:</b>          | 5q31.3  |
| <b>Domains:</b>               | CA  |
| <b>Protein Families:</b>      | Transmembrane   |
| <b>MW:</b>                    | 101 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]

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