

## Product datasheet for **RG208156**

### CDH12 (NM\_004061) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CDH12 (NM_004061) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CDH12
Synonyms:	CDHB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG208156 representing NM\_004061  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGCTTACAAGGAAGTGTATCCCTGCTTCTCTGGGTTCTGTTTATGAGGTTCTCTAACACCACTAC  
 AACACAGCCACAGCAGACTTTAGCCACAGAGCCAAGAGAAAATGTTATCCATCTGCCAGGACAACGGTC  
 ACATTTCCAACGTGTTAAACGTGGCTGGGTATGGAATCAATTTTTTGTGCTGGAAGAATACGTGGCTCC  
 GAGCCTCAGTATGTGGGAAAGCTCCATTCCGACTTAGACAAGGGAGAGGGCACTGTGAAATACACCTCT  
 CAGGAGATGGCGCTGGCACCCTTTTACCATTGATGAAACCACAGGGGACATTTCATGCAATAAGGAGCCT  
 AGATAGAGAAGAGAAACCTTTCTACACTCTTCGTGCTCAGGCTGTGGACATAGAAACCAGAAAGCCCTG  
 GAGCCTGAATCAGAATTCATCATCAAAGTGCAGGATATTAATGATAATGAGCCAAAGTTTTTGGATGGAC  
 CTTATGTTGCTACTGTTCCAGAAATGTCTCCTGTGGGTGCATATGTACTCCAGGTCAGGCCACAGATGC  
 AGATGACCCGACCTATGGAACAGTGCCAGAGTCGTTTACAGCATTCTTCAGGGACAACCTATTTCTCT  
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 AAGTACTCATCCAAGCAAGGATATGGGAGGACAGCTTGGAGGATTAGCCGGAACAACAATAGTCAACAT  
 CACTCTCACCGATGTCAATGACAATCCACCTCGATTCCCAAAAGCATCTTCCACTTGAAAGTTCCTGAG  
 TCTTCCCCTATTGGTTCAGCTATTGGAAGAATAAGAGCTGTGGATCCTGATTTTGGACAAAATGCAGAAA  
 TTGAATACAATATTGTTCCAGGAGATGGGGAAATTTGTTTGACATCGTCACAGATGAGGATACACAAGA  
 GGGAGTCATCAAATGAAAAAGCCTTTAGATTTTGAACAAGAAGGCATACACTTTCAAAGTTGAGGCT  
 TCCAACCTTCACTTGACCACCGGTTTCACTCGCGGGCCCTTCAAAGACACAGCTACGGTGAAGATCA  
 GCGTGTGGAGCTAGATGAGCCACCGGTTTTAGCAAGCCGCTTACACCATGGAGGTTTTGAAGACAC  
 TCCGGTAGGGACCATCATTGGCGCTGCTACTGCTCAAGACCTGGATGTAGGCAGCAGTGCTGTTAGGTAC  
 TTCATAGATTGGAAGAGTATGGGGACAGCTACTTTACAATAGATGGAATGAAGGAACCATCGCCACTA  
 ATGAATTAAGACAGAGAAAGCACTGCGCAGTATAATTTCTCCATAATTGCGAGTAAAGTTAGTAACCC  
 TTTATTGACCAGCAAAGTCAATACTGATTAATGTCTTAGATGTAATGAATTTCTCCAGAAATATCT  
 GTGCCATATGAGACAGCCGTGTGTGAAATGCCAAGCCAGGACAGATAATTCAGATAGTCAGTGTCTGCAG  
 ACCGAGATCTTTCACCTGCTGGCAACAATTCCTTTAGATTATCACCTGAGGCTGCTATCAAACCAAA  
 TTTTACAGTTCGTGACTTCAGAAACAACACAGCGGGGATTGAAACCCGAAGAAATGGATACAGCCGAGG  
 CAGCAAGAGTTGATTTCTCCCTGTTGTAATAGAAGACAGCAGTACCCTGTCCAGAGCAGCACAACA  
 CAATGACTATTCGAGTCTGTAGATGTGACTCTGATGGCACCATCCTGTCTTGAATGTGGAAGCAATTT  
 TCTACCTGTAGGACTTAGCACTGGGGCGTTGATTGCAATTTACTATGCATTGTTATACTCTTAGCCATA  
 GTTGTACTGTATGTAGCACTGCGAAGGCAGAAGAAAAAGACACCCTGATGACCTCTAAAGAAGACATCA  
 GAGACAACGTCATCCATTACGATGATGAAGGAGTGGGGAGGAAGATACCCAGGCTTTCGACATCGGGGC  
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 CCTCGTCAGAGACCACCCATGGAAGATAACACAGACATAAGGGATTTTATTTCATCAAAGGCTACAGGAAA  
 ATGATGTGGATCCAACCTGCCACCACATACGATTCAGTGGCCACATATGCCTACGAAGGGAGTGGGTCGT  
 GGCAGAGTCCCTCAGCTCTATAGACTCTCTCACCACAGAAGCCGACCAGGACTATGACTATCTGACAGAC  
 TGGGGACCCCGCTTTAAAGTCTTGGCAGACATGTTTGGCGAAGAAGAGAGTTATAACCCTGATAAAGTCA  
 CT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG208156 representing NM\_004061  
Red=Cloning site Green=Tags(s)

MLTRNCLSLLLWVLFDGGLLTPLQPQPQQLATEPRENVIHLPGQRSHFQRVKRGWVWNQFFVLEEYVGS  
EPQYVVKLHSDLDKGEQVTKYTLSGDGAGTVFTIDETTGDIHAIRSLDREKPFYTLRAQAVDIETRKPL  
EPESEFIIKVDINDNEPKFLDGPYVATVPEMSPVGAYVLQVKATDADDPTYGNSARVVYSILQGQPYFS  
IDPKTGVIRTUALPNMDREVKEQYQVLIQAKDMGGQLGGLAGTTIVNITLTDVNDNPPRFPKSIFHLKVP  
SSPIGSAIGRIRAVDPDFGQNAEIEYNI VPGDGGNLFDIVTDEDTQEGVIKLLKPLDFETKKAYTFKVEA  
SNLHLDHRFHSAGPFKDTATVKISVLDVDEPPVFSKPLYTMEVYEDTPVGTIIGAVTAQDLVDGSSAVRY  
FIDWKS DGSDSYFTIDGNEG TIATNELL DRESTAQYNF SIIASKVSNPLLT SKVNI LINVLDVNEFPPEIS  
VPYETAVCENAKPGQIIQIVSAADRDLSPAGQQFSFRLSPEAAIKPNFTVRDFRNN TAGIETRRNGYSRR  
QQELYFLPVVIEDSSYPVQSSTNTMTIRVCRCDSDGTILSCNVEAIFLPVGLSTGALIAILLCIVILLAI  
VVLVVALRRQKKKDTLMTSKEDIRDNVIHYDDEGGGEEDTQAFDIGALRNPKVIEENKIRRD IKPDSLCL  
PRQRPPMEDNTDIRDFIHQRLQENDVDPTAPPYDSLATYAYEGSGSVAESLSSIDSLTTEADQDYDYLTD  
WGPRFKVLADMFGEESYNPKVT

TRTRPLE - GFP Tag - V

**Restriction Sites:** Sgfl-MluI



**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_004061.5](#)

**RefSeq Size:** 4164 bp

**RefSeq ORF:** 2385 bp

**Locus ID:** 1010

**UniProt ID:** [P55289](#)

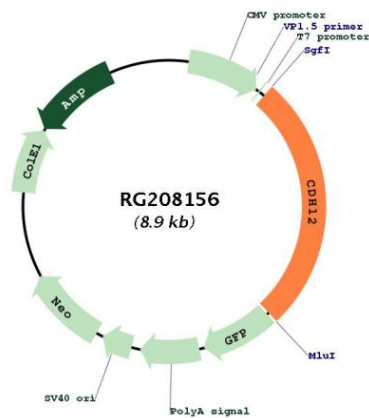
**Cytogenetics:** 5p14.3

**Domains:** Cadherin\_C\_term, CA

**Protein Families:** Transmembrane

**Gene Summary:**

This gene encodes a type II classical cadherin of the cadherin superfamily. Alternative splicing of this gene results in multiple transcript variants. At least one of these variants encodes a preproprotein that is proteolytically processed to generate the mature cadherin protein. These integral membrane proteins mediate calcium-dependent cell-cell adhesion and are composed of a large N-terminal extracellular domain, a single membrane-spanning domain, and a small, highly conserved C-terminal cytoplasmic domain. Type II (atypical) cadherins are defined based on their lack of a histidine-alanine-valine (HAV) cell adhesion recognition sequence specific to type I cadherins. This particular cadherin appears to be expressed specifically in the brain and its temporal pattern of expression would be consistent with a role during a critical period of neuronal development, perhaps specifically during synaptogenesis. [provided by RefSeq, Nov 2015]

**Product images:**


Circular map for RG208156