

## Product datasheet for **RG220800**

### DAAM2 (NM\_015345) Human Tagged ORF Clone

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids   |
| Product Name:             | DAAM2 (NM_015345) Human Tagged ORF Clone                                    |
| Tag:                      | TurboGFP  |
| Symbol:                   | DAAM2   |
| Synonyms:                 | dj90A20A.1  |
| Mammalian Cell Selection: | Neomycin  |
| Vector:                   | pCMV6-AC-GFP (PS100010)   |
| E. coli Selection:        | Ampicillin (100 ug/mL)  |
| ORF Nucleotide Sequence:  | >RG220800 representing NM_015345<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCCCCGCAAGAGGAGCCACCATGGCCTGGGCTTCTGTGCTGCTTCGGGGCAGTGACATCCCCG  
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GGCGAGACCAGGAGAGAAAGTCCGAAAGAACACATGGAGCTTGTGAGCCGTCTGGAGAGGAAGGAGCG  
GGATGCGAGACAAAGACATTGGAGAAGGAAGAGATGATGCGGACGCTGAACAAAATGAAGGACAAGCTG



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GCCCCGGAGTCCCAGGAGCTGCGCCAGGCTCGGGGACAAGTGGCAGAGCTGGTAGCCCAGCTCAGTGAAC  
TCTCAACAGGCCCTGTATCTTCCCACCACCCCTGGGGGCCACTCACCTTGTCTTCTCAATGACAAC  
CAATGACCTGCCTCCACCCCTCCTCCTCTGCCCTTTGCCTGTTGTCCCCCTCCCCACCACCACCCCTT  
CCTCCCGGGGACCCCGACTCCCCAGGTGCCACCTTGCCCTCGGCATGGGCCGCCCCCTCCCTCAGG  
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AACATCTTCCAGAAGCTGCCAAAGTCAACCTAGCAGAAGTGGAGAAGGAGGTGGGCAACCTCAGGAGGGG  
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AGCGGCAGCGGAAGGTCTGGCTGCAGGCAGCTCGCTGGAGGAGGAGGAGATTTCGATGACCTGGTGTG  
GGCCCTGCGCTCTGGGGAGGTCTTCGACAAGGACTTATGCAAGCTCAAGCGCAGCCGCAAGCGATCAGGG  
AGCCAGGCCCTGGAAGTTACCCGGGAGCGGCAATAAACCGGCTAAATTAT

AGCGGACCGACCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG220800 representing NM\_015345  
Red=Cloning site Green=Tags(s)

MAPRKRSHHGLGFLCCFGGSDIPEINLRDNLPLQFMFSSPIPNAEELNIRFAELVDELDTLTKNREAMF  
ALPPEKKWQIYCSKKKEQEDPNKLATSWPDYYIDRINSMAAMQSLYAFDEEETEMRNQVVEDLKTALRTQ  
PMRFVTRFIELEGLTCLLNFLRSMHATCESRIHTSLIGCIKALMNSQGRAHVLAQPEAISTIAQSLRT  
ENSKTKVAVLEILGAVCLVPGGHKKVLQAMLHYQVYAAERTRFQTLNLDLDRSLGRYRDEVNLKTAIMSF  
INAVLNAGAGEDNLEFRLHLRYEFLMLGIQPVIDKLRQHENAILDKHLDFEMVRNEDDLELARRFDMVH  
IDTKSASQMFELIHKKLKYTEAYPCLLSVLHHCLQMPYKRNGGYFQQWQLLDRIILQQIVLQDERGVDPL  
APLENFNVKNIWNMLINENEVKQRWDQAEKFRKEHMELVSRLERKERECETKTLEKEEMMRTLNMKDKL  
ARESQELRQARGQVAELVAQLSELSTGPVSSPPPPGGPLTLSSMTTNDLPPPPPLPFACPPPPPPPL  
PPGGPPTPPGAPPCLGMGLPLPQDPYPSDVPLRKKRVPQPSHPLKSFNWVWKLNEERVPGTVWNEIDDMQ  
VFRILDLEDFEKMFSAAYQRHQKELGSTEDIYLASRKVKELSVIDGRRARQNCIILLSKLKLNEEIRQAIL  
KMDEQEDLAKDMLLEQLLKFIEPKSDIDLLEEHKHEIERMARADRFLYEMSRIDHYQQLQALFFKKKFQE  
RLAEAKPKVEAILLASRELVRSKRLRQMLEVILAIGNFMNKGQRGGAYGFRVASLNKIADTKSSIDRNIS  
LLHYLIMILEKHFPDILNMPSELQHLPEAAKVNLAELEKEVGNLRRGLRAVEVLEYQRRQVREPSDKFVP  
VMSDFITVSSFSFSELEDQLNEARDKFAKALMHFGEHDSKMQPDEFFGIFDTFLQAFSEARQDLEAMRRR  
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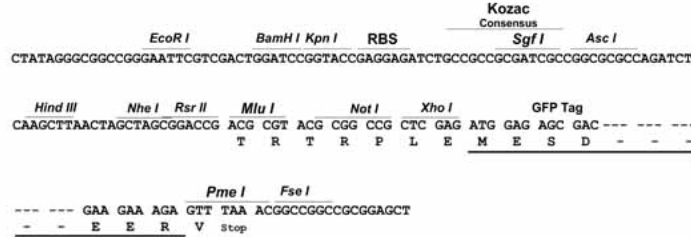
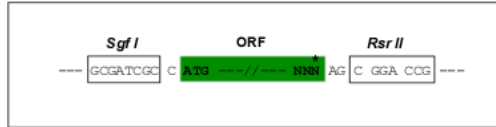
SGPTRRRLE - GFP Tag - V

**Restriction Sites:**

SgfI-RsrII

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**ACCN:** NM\_015345

**ORF Size:** 3201 bp

**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\\_015345.3](#)

**RefSeq Size:** 6215 bp

**RefSeq ORF:** 3204 bp

**Locus ID:** 23500

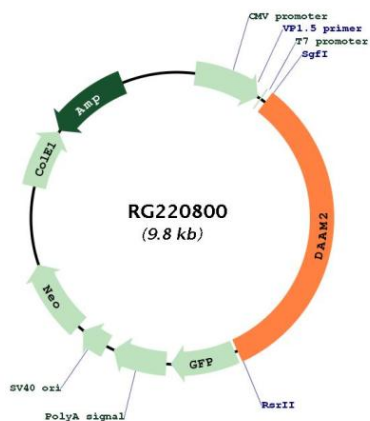
**UniProt ID:** [Q86T65](#)

**Cytogenetics:** 6p21.2

**Protein Pathways:** Wnt signaling pathway

**Gene Summary:** Key regulator of the Wnt signaling pathway, which is required for various processes during development, such as dorsal patterning, determination of left/right symmetry or myelination in the central nervous system. Acts downstream of Wnt ligands and upstream of beta-catenin (CTNNB1). Required for canonical Wnt signaling pathway during patterning in the dorsal spinal cord by promoting the aggregation of Disheveled (Dvl) complexes, thereby clustering and formation of Wnt receptor signalosomes and potentiating Wnt activity. During dorsal patterning of the spinal cord, inhibits oligodendrocytes differentiation via interaction with PIP5K1A. Also regulates non-canonical Wnt signaling pathway. Acts downstream of PITX2 in the developing gut and is required for left/right asymmetry within dorsal mesentery: affects mesenchymal condensation by lengthening cadherin-based junctions through WNT5A and non-canonical Wnt signaling, inducing polarized condensation in the left dorsal mesentery necessary to initiate gut rotation. Together with DAAM1, required for myocardial maturation and sarcomere assembly.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG220800