

## Product datasheet for **MG227557**

### **Dab2 (NM\_001102400) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Dab2 (NM_001102400) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Dab2
Synonyms:	5730435J12Rik; AA960054; AI957090; D15Wsu122e; D630005B22Rik; Doc-2; Doc2; p96
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG227557 representing NM\_001102400  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGC**C

ATGTCTAACGAAGTAGAAACAAGCACACCAATGGCCAGCCTGACCAACAGGCTGCCCGAAAGCGCCAT  
 CAAAGAAGGAGAAGAAGAAAGTTCTGAAAAGACAGACGAGTACTTGTGGCCAGGTTCAAAGGTGATGG  
 TGTAATAATACAAGGCCAAGCTAATCGGTATTGATGATGTGCCTGATGCTCGAGGAGACAAAATGAGTCAG  
 GATTCTATGATGAACTCAAGGGAATGGCAGCAGCTGGTCGCTCTCAGGGACAACACAAGCAAAGAATCT  
 GGGTCAACATTTCTTGTCTGGCATAAAAATCATTGATGAGAAAAGTGGGTAATTGAACATGAACATCC  
 AGTAAATAAGATTTCTTCATTGCTCGTATGTGACAGACAACAGAGCATTGGTTATGTGTGTGGAGGT  
 GAAGGCCAGCATCAATTTTTTGTATAAAAACAGGGCAACAGGCTGAACCATTAGTCGTCGATCTTAAAG  
 ACCTTTTTCAAGTTATCTATAATGTAAAGAAAAAGGAAGAAGATAAGAAAAAGTTGAAGAAGCCAACAA  
 AGCAGAAGAGAATGGAAGTGAGGCCCTAATGACCCTTGATGATCAAGCTAACAAATTGAAGCTGTCTTCA  
 GCAAACGACTTGCTTGCTTCAGACATCTTTCCTCAGAACCTCCAGGCCAGATGTCCCCACAGGACAAC  
 CTGCAGTCCCGCAGTCGAACCTTCTGGATCTCTTCAAAGGCAATGCTCCTGCCCGAGTGGGGCCCTTGT  
 AGGTCTAGGTACGGTCCAGTAACACCCCCCAAGCAGGACCCTGGACGCTGTTGTCTACAGTCTTTCG  
 ACAACTGTGGTCCAGGAGCCATAATAAGTGGCCAGCCTCCAGTTTTGGCCAGCCACTCGTTTTTGGTA  
 CAACCCAGCAGTACAAGTCTGGAATCAGTCTCCATCATTTGCAACCCAGCTTCCCCTCCACCCCCAC  
 AGTTTGGTGTCTACCATCTGTGGCGCCCAACGCTTGGTCATCCACAAGCCCTCTGGGAATCCTTTT  
 CAGAGTAATAATATCTTCCACCTCCCACCATGTCCACTCAGTCTCTCTCAGCCTATGATGTCTCTG  
 TTCTGGCCACACCGCCTCAACCACCTCCCCGAAATGGCCACTAAAGGACATCCAGTGACGCTTTCAC  
 TGGCTTAGACCCCTTGGGGATAAAGAGGTCAAGGAAGTGAAGAAATGTTTAAGGACTTCCAGCTGCGG  
 CAGCCACCTCTTGTCCCTCAAGGAAGGGGAGACGCTCCCTCTGGGACTTCAAGCGCCTTCTCCAGTT  
 ACTTCAACAATAAAGTTGGCATTCTCAGGAGCATGTAGACCATGATGATTTTGTGCCAATCAACTGTT  
 GAACAAGATTAATGAACCACCAAGCCAGCCCCGAGACAAGGTGTCTCTTGGGTACCAAGTCTGCTGAC  
 AATTCAGTCGAGAACCCTTTCTCAAAGGGTTCAGCTCATCAAAACCCTCTGTGGTTTCTCAGCCTGCAT  
 CTTCTGATCCCCACAGGAGCCCTTCGGAATCCTTTTGGC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

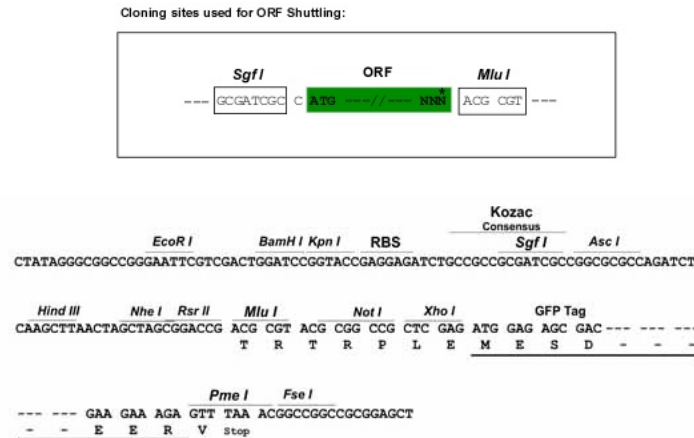
>MG227557 representing NM\_001102400  
 Red=Cloning site Green=Tags(s)

MSNEVETSTTNGQPDQQAAPKAPSKKEKKKGSEKTDEYLLARFKGDGVKYAKLIGIDVDPDARGDKMSQ  
 DSMMLKGMMAAGRSQGQHKQRIWVNIISLGGIKIIDEKTGVIEHEHPVKNISFIARDVTDNRAFVYVCGG  
 EGQHQFFAIKTGQQAEPVLDLKFQVIYNVKKKEEDKKKVEEANKAEENGSEALMTLDDQANKLKLSS  
 ANDLLASDIFASEPPGQMSPTGQPAVPQSNFLDLFKGNAPAPVGPLVGLGTVPTVTPPQAGPWTPVYVSPS  
 TTVVPGAIISGQPPSFGQPLVFGTTPAVQVWNQSPSFATPASPPPTVWCPTTSVAPNAWSSTSPNGPF  
 QSNNIIFPPPTMSTQSSPQPMSSVLATPPQPPRNGPLKDIPSDAFTGLDPLGDKEVKEVKEMFDFQLR  
 QPPLVPSRKGETPPSGTSSAFSSYFNNKVGIPQEHVDHDDFDANQLLNKINEPPKAPRQGVLLGTKSAD  
 NSLENPFSGKFSSSNPSVVSQPASSDPHRSPFGNPFA

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

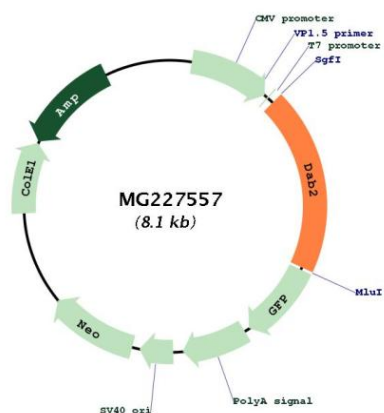
**Cloning Scheme:**


ACCN:	NM_001102400
ORF Size:	1581 bp
OTI Disclaimer:	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. <a href="#">More info</a>
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:	<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>
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<a href="#">NM_001102400.1</a> , <a href="#">NP_001095870.1</a>
RefSeq Size:	3803 bp
RefSeq ORF:	1584 bp
Locus ID:	13132

**Cytogenetics:** 15 2.15 cM

**Gene Summary:** Adapter protein that functions as clathrin-associated sorting protein (CLASP) required for clathrin-mediated endocytosis of selected cargo proteins. Can bind and assemble clathrin, and binds simultaneously to phosphatidylinositol 4,5-bisphosphate (PtdIns(4,5)P<sub>2</sub>) and cargos containing non-phosphorylated NPXY internalization motifs, such as the LDL receptor, to recruit them to clathrin-coated pits. Can function in clathrin-mediated endocytosis independently of the AP-2 complex. Involved in endocytosis of integrin beta-1; this function seems to be redundant with the AP-2 complex and seems to require DAB2 binding to endocytosis accessory EH domain-containing proteins such as EPS15, EPS15L1 and ITSN1. Involved in endocytosis of cystic fibrosis transmembrane conductance regulator/CFTR. Isoform p96 is involved in endocytosis of megalin/LRP2 lipoprotein receptor during embryonal development. Required for recycling of the TGF-beta receptor. Isoform p67 is not involved in LDL receptor endocytosis. Involved in CFTR trafficking to the late endosome. Involved in several receptor-mediated signaling pathways. Involved in TGF-beta receptor signaling and facilitates phosphorylation of the signal transducer SMAD2. Mediates TGF-beta-stimulated JNK activation. May inhibit the canonical Wnt/beta-catenin signaling pathway by stabilizing the beta-catenin destruction complex through a competing association with axin preventing its dephosphorylation through protein phosphatase 1 (PP1). Sequesters LRP6 towards clathrin-mediated endocytosis, leading to inhibition of Wnt/beta-catenin signaling. May activate non-canonical Wnt signaling. In cell surface growth factor/Ras signaling pathways proposed to inhibit ERK activation by interrupting the binding of GRB2 to SOS1 and to inhibit SRC by preventing its activating phosphorylation at 'Tyr-419'. Proposed to be involved in modulation of androgen receptor (AR) signaling mediated by SRC activation; seems to compete with AR for interaction with SRC. Plays a role in the CSF-1 signal transduction pathway. Plays a role in cellular differentiation. Involved in cell positioning and formation of visceral endoderm (VE) during embryogenesis and proposed to be required in the VE to respond to Nodal signaling coming from the epiblast. Required for the epithelial to mesenchymal transition, a process necessary for proper embryonic development. May be involved in myeloid cell differentiation and can induce macrophage adhesion and spreading. Isoform p67 may be involved in transcriptional regulation. May act as a tumor suppressor. [UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for MG227557