

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**CGCATCGCC**

ATGTCTAACGAAGTAGAAACAAGCACAAACCAATGGCCAGCCTGACCAACAGGCTGCCCGAAAGCGCCAT
 CAAAGAAGGAGAAGAAGAAAGTTCTGAAAAGACAGACGAGTACTTGTGGCCAGTTCAAAGGTGATGG
 TGTAAAATACAAGGCCAAGCTAATCGGTATTGATGATGTGCCTGATGCTCGAGGAGACAAAATGAGTCAG
 GATTCTATGATGAAACTCAAGGGAATGGCAGCAGCTGGTCGCTCTCAGGGACAACACAAGCAAAGAATCT
 GGGTCAACATTTCTTGTCTGGCATAAAAATCATTGATGAGAAAAGTGGGTAATTGAACATGAACATCC
 AGTAAATAAGATTTCTTCTGCTCGTATGTGACAGACAACAGAGCATTGGTTATGTGTGGAGGT
 GAAGGCCAGCATCAATTTTTGCTATAAAAACAGGGCAACAGGCTGAACCATTAGTCGTCGATCTTAAAG
 ACCTTTTTCAAGTTATCTATAATGTAAGAAAAAGGAAGAAGATAAGAAAAAGTTGAAGAAGCCAACAA
 AGCAGAAGAGAATGGAAGTGAGGCCCTAATGACCCTTGATGATCAAGCTAACAAATTGAAGCTGTCTTCA
 GCAAACGACTTGCTTGCTTCAGACATCTTTCCTCAGAACCTCCAGGCCAGATGTCCCCACAGGACAAC
 CTGCAGTCCCGCAGTCGAACTTTCTGGATCTCTCAAAGGCAATGCTCCTGCCCCAGTGGGGCCCTTGT
 AGGTCTAGGTACGGTCCCAGTAACACCCCCCAAGCAGGACCCTGGACGCCTGTTGTCTACAGTCCCTCG
 ACAACTGTGGTCCCAGGAGCCATAATAAGTGGCCAGCCTCCAGTTTTGGCCAGCCACTCGTTTTGGTA
 CAACCCAGCAGTACAAGTCTGGAATCAGTCTCCATCATTTGCAACCCAGCTTCCCCTCCACCCCCAC
 AGTTTGGTGTCTACCACATCTGTGGCGCCCAACGCTTGGTCAATCCACAAGCCCTCTGGGAATCCTTTT
 CAGAGTAATAATATCTTCCACCTCCACCATGTCCACTCAGTCTCTCCTCAGCCTATGATGTCCTCTG
 TTCTGGCCACACCGCCTCAACCACCTCCCCGAAATGGCCACTAAAGGACATCCAGTACGCTTTCAC
 TGGCTTAGACCCCTTGGGGATAAAGAGGTCAAGGAAGTGAAGAAATGTTTAAGGACTTCCAGCTGCGG
 CAGCCACCTCTTGTCCCTCAAGGAAGGGGAGACGCCTCCCTCTGGACTTCAAGCGCCTTCTCCAGTT
 ACTTCAACAATAAAGTTGGCATTCTCAGGAGCATGTAGACCATGATGATTTTGTGCAACTCAACTGTT
 GAACAAGATTAATGAACCACCAAAGCCAGCCCGAGACAAGGTGTCTCTGGGTACCAAGTCTGCTGAC
 AATTCACTCGAGAACCCTTTCTCAAAGGGTTCAGCTCATCAAACCCCTCTGTGGTTTCTCAGCCTGCAT
 CTTCTGATCCCCACAGGAGCCCTTCGAAATCCTTTTGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG227557 representing NM_001102400
 Red=Cloning site Green=Tags(s)

MSNEVETSTTNGQPDQQAAPKAPSKKEKKKSEKTDEYLLARFKGDGVKYKAKLIGIDDPDARGDKMSQ
 DSMMKLKGMAAAGRSQGQHKQRIWVNIISLGGIKIIDEKTVGIEHEHPVNKISFIARDVTDNRAFVYVCGG
 EGQHQFFAIKTGQQAEPVLDLDFQVIYNVKKKEEDKKVVEEANKAEENGSEALMTLDDQANKLKLSS
 ANDLLASDIFASEPPGQMSPTGQPAVPQSNFLDLFKGNAPAPVGPLVGLGTVPVTPPPQAGPWTPVYVSPS
 TTVVPGAIISGQPPSFGQPLVFGTTPAVQVWVNSPSPFATPASPPTVWCPTTSVAPNAWSSTSPNGPF
 QSNNIIFPPPTMSTQSSPQPMSSVLATPPQPPRNGPLKDIIPSDAFTGLDPLGDKEVKEVKEMFDFQLR
 QPPLVPSRKGETPPSGTSSAFSSYFNKVGIPQEHVDHDDFDANQLLNKINEPPKPAPRQVLLGKTSAD
 NSLENPFSKGFSSNPSVVSQPASDPHRSPFGNPF

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

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. 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:	<ol style="list-style-type: none">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_001102400.1 , NP_001095870.1
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)P₂) 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]