

Product datasheet for **MC223649**

Dab2ip (NM_001001602) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Dab2ip (NM_001001602) Mouse Untagged Clone
Tag: Tag Free
Symbol: Dab2ip
Synonyms: 2310011D08Rik; AI480459; Aip1; mKIAA1743
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC223649 representing NM_001001602
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGGCCTCTGTGGCCTTGGACTCCTCGGTGACAACTTGGCAAGATCCTGTGCTGGTCTGGAGGTGCCA
 CTCTCTGGAGGCCAGCCATCCTCGGAAGCCTCATCTGGCTGCTGGGCCTCAGATGCCAGGTGAGGAGT
 GAGGCCTACACTCCTATCGTTGCCAAGTCCCATCTGATGCCAAGGCTGAAGGAGTCTCGGTGACACGAG
 TCCTGCTCAGCCCAGCAGCGCAGTGGAGGCCCTGGACCTCAGCATGGAGGAGGAGGTGATTATCAAGC
 CCGTTCACAGCAGCATCCTGGGTGAGGACTACTGCTTCGAGGTGACAACATCATCAGGAAGCAAGTGT
 TTCTGCGCGTACGCGCTGAGCGCGATAAGTGGATGGAGAACCTGAGGCGAGCAGTGCACCCCAACAAG
 GACAACAGCCGGCGTGTGGAGCATATCCTGAAGCTGTGGGTGATTGAGGCCAAGGATCTGCCGGCCAAGA
 AGAAGTATCTATGTGAAGTGTGCTGGACGATGTGCTGTATGCCCGTACCACAAGCAAGTCAAGACGGA
 CAATGTCTTCTGGGGAGAGCACTTTGAGTTCATAAACCCTGCCCTCTACGCACAGTCACTGTGCACCTG
 TATCGGGAGACTGACAAGAAAAAGAAAAAGGAACGCAACAGCTACCTGGGCTGGTGAGCCTGCCTGCCG
 CCTCTGTGGCTGGGCGGAGTTTGTGGAGAAGTGTACCCAGTGGTGACACCCAACCCCAAGGGTGGCAA
 AGGCCCTGGGCCATGATCCGAATCAAGGCACGCTACCAGACCGTCAGCATCTTGCTATGGAGATGTAC
 AAGGAGTTTTCGAGCAGCATCACTAACCCTACCTGGGGCTGTGCGCAGCCCTGGAACCCATCCTCAGTG
 CCAAGACCAAGGAGGAGATGGCGTGGCTCTGGTGCACATCCTGCAGAGCACGGAAAGGTGAAGGACTT
 TCTAACAGACCTGATGATGTCAGAGGTGGACCGCTGTGGGGACAATGAGCACCTCATCTCCGGGAGAAC
 AACTGGCCACCAAGGCCATCGAGGAATACCTCAAACCTGTGGGCCAGAAGTACCTGCAGGACGCACTAG
 GTGAGTTCATCAAAGCTCTGTATGAGTCAGATGAAAATTGTGAAGTGGACCAAGCAAGTGTCTCATCCGC
 TGACCTCCCTGAGCACCAGGGCAACCTCAAGATGTGCTGTGAGCTGGCCTTCTGCAAGATCATCAACTCC
 TACTGCGTCTTCCACGGGAGCTTAAGGAGGTGTTGCGCTCATGGCGGCAGGAGTGTAGCAGCCGAGGCC
 GGCCAGATATCAGTGAACGGCTCATCAGCGCCTCCCTCTTCTTCCGCTTCTGTGCCCTGCCATCATGTC
 ACCCTCGCTCTTCAACCTGCTTCAGGAGTATCCTGACGACCGCACGGCTCGCACCCCTCACGCTATTGCC
 AAAGTACCCAGAACCTGGCCAACCTTGGCAAGTTGGCAGCAAGGAAGAATACATGTCTTTCATGAACC



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AGTTCCTGGAGCACGAGTGGACCAACATGCAGCGCTTCCTGTTGGAGATCTCCAACCCCGAGACCCTTTC
CAACACAGCAGGCTTCGAGGGCTACATAGACCTGGGCCGGGAGCTCTCTAGCCTGCACTCCCTGCTCTGG
GAAGCTGTGAGCCAGCTTGATCAGAGCGTTGTGTCGAAGCTGGGACCTCTGCCTCGTATCCTGAGGGATG
TCCACACAGCACTGAGCACTCCTGGCAGTGGGCAGCTCCCTGGCACCAATGACCTGGCCTCCACCCCGGG
CTCCGGCAGCAGCAGCGTCTCTGCTGGGCTTCAGAAGATGGTATTGAAAATGACCTCTCTGGTCTGATA
GATTTACCCCGGTTACCGTCTCCAACCCCGAAAAACAAGGACTTGTTTTTGTACAAGGCTCCCGGGG
TCCAGCCTTACCTGCCCGCAGCTCAAGTACTCAGAAGCCAATGAACCTGACCTGCAGATGGCCCAATGG
CAGCAAGAGCCTGTCCATGGTGGACCTCCAGGACGCCCGCAGCTGGATGGGGAGGCAGGTTCCCCAGTG
GGCCAGACGCCCTACCTGCTGACGGGCAGGTGCCTGCGACTCAGCTGCTGGCTGGGTGGCCAGCCAGGG
CAGCCCCAGTGAGCCTGGCAGGATTGGCCACAGTGCGGCGGGCAGTGCCAACACCAACCACACAGGCAC
CTCCGAGGGTGCACCAGGACGGCCCAAGTTGTTGGCCCCACTTTCCTTCCAGAATCCTGTGTACCAGATG
GCGGCCGGCTGCCACTGTACCCCGTGGCCTTGGTGACTCAGGCTCTGAAGGCCACAGCTCCCTGAGCT
CTCACAGAACAGTGAAGAGCTGGCAGCCGCTGCCAACTAGGAAGTTTCAGCACTGCTGCAGAGGAGCT
GGCAAGGGCGCCTGGAGAAGTGGCAGGAGGCAGATGTCAGTACTGAGAAGGGTGGGCAGCCACAGTG
CCGAGGCAAAATAGTGCCGGTCCCAGCGGAGGATTGACCAGCCGCCACCACCACCACCACCGCCTC
CTGCTCCCGGGGCGAGGACACCTCTACCTGCTGAGCACCTACAGTACCCACGACCTCAAGTGGAAC
CCTGGCATCAGCATCCCCGACTGGGCTGGCCCTGGCACCCGGCTGCGGCAACAGTCTCTCTCTCCAAG
GGAGACAGCCAGAGCTGAAGCCCCGAGCCATGCACAAGCAGGGCCCTTACCCGTGAGTCCCAATGCC
TGGACCGCACGGCCGCTTGGCTCTTGACCATGAACGCGCAGTTGTTAGAAGACGAGGGTCTGGGCCAGA
TCCCCCCCACAGGGATAGGCTAAGGAGTAAGGAGGAACTCAGCCAAGCAGAAAAGGATCTGGCAGTGCTA
CAAGACAAGCTACGGATCTCCACCAAGAAGCTGGAGGAGTATGAGACCCTATTCAAGTCCAGGAGGAGA
CGACGCAGAAGCTGGTGTGGAGTATCAGGCTCGGCTGGAAGAAGGTGAGGAGCGGCTGCGGCCGAGCA
GGAAGACAAGGATATCCAGATGAAAGGCATCATCAGCAGGTTGATGTCAGTGAAGAAGAAGTGAAGAAG
GATCATGCAGAGATGCAAGCAGCTGTAGATTCCAACAGAAAGATCATCGATGCCAGGAAAAGCGCATTG
CCTCGCTGGATGCTGCCAATGCCCGCTCATGAGTGCCCTCACACAGCTGAAAGAGAGGTACAGCATGCA
AGCCCGTAACGGCGTCTCCCCACCAACCCACCAAAATTGCAGATTACTGAGAACGGCGAGTTCAGAAAC
AGCAGCAATTGTAA
    
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_001001602
- Insert Size:** 3375 bp
- OTI Disclaimer:** 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).
- 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_001001602.2](#), [NP_001001602.2](#)
RefSeq Size: 6424 bp
RefSeq ORF: 3375 bp
Locus ID: 69601
UniProt ID: [Q3UHC7](#)
Cytogenetics: 2 B

Gene Summary:

Functions as a scaffold protein implicated in the regulation of a large spectrum of both general and specialized signaling pathways. Involved in several processes such as innate immune response, inflammation and cell growth inhibition, apoptosis, cell survival, angiogenesis, cell migration and maturation. Plays also a role in cell cycle checkpoint control; reduces G1 phase cyclin levels resulting in G0/G1 cell cycle arrest. Mediates signal transduction by receptor-mediated inflammatory signals, such as the tumor necrosis factor (TNF), interferon (IFN) or lipopolysaccharide (LPS). Modulates the balance between phosphatidylinositol 3-kinase (PI3K)-AKT-mediated cell survival and apoptosis stimulated kinase (MAP3K5)-JNK signaling pathways; sequesters both AKT1 and MAP3K5 and counterbalances the activity of each kinase by modulating their phosphorylation status in response to proinflammatory stimuli. Acts as a regulator of the endoplasmic reticulum (ER) unfolded protein response (UPR) pathway; specifically involved in transduction of the ER stress-response to the JNK cascade through ERN1. Mediates TNF-alpha-induced apoptosis activation by facilitating dissociation of inhibitor 14-3-3 from MAP3K5; recruits the PP2A phosphatase complex which dephosphorylates MAP3K5 on 'Ser-966', leading to the dissociation of 13-3-3 proteins and activation of the MAP3K5-JNK signaling pathway in endothelial cells. Mediates also TNF/TRAF2-induced MAP3K5-JNK activation, while it inhibits CHUK-NF-kappa-B signaling. Acts a negative regulator in the IFN-gamma-mediated JAK-STAT signaling cascade by inhibiting smooth muscle cell (VSMCs) proliferation and intimal expansion, and thus, prevents graft arteriosclerosis (GA). Acts as a GTPase-activating protein (GAP) for the ADP ribosylation factor 6 (ARF6) and Ras. Promotes hydrolysis of the ARF6-bound GTP and thus, negatively regulates phosphatidylinositol 4,5-bisphosphate (PIP2)-dependent TLR4-TIRAP-MyD88 and NF-kappa-B signaling pathways in endothelial cells in response to lipopolysaccharides (LPS). Binds specifically to phosphatidylinositol 4-phosphate (PtdIns4P) and phosphatidylinositol 3-phosphate (PtdIns3P). In response to vascular endothelial growth factor (VEGFA), acts as a negative regulator of the VEGFR2-PI3K-mediated angiogenic signaling pathway by inhibiting endothelial cell migration and tube formation. In the developing brain, promotes both the transition from the multipolar to the bipolar stage and the radial migration of cortical neurons from the ventricular zone toward the superficial layer of the neocortex in a glial-dependent locomotion process. Probable downstream effector of the Reelin signaling pathway; promotes Purkinje cell (PC) dendrites development and formation of cerebellar synapses. Functions also as a tumor suppressor protein in prostate cancer progression; prevents cell proliferation and epithelial-to-mesenchymal transition (EMT) through activation of the glycogen synthase kinase-3 beta (GSK3B)-induced beta-catenin and inhibition of PI3K-AKT and Ras-MAPK survival downstream signaling cascades, respectively.[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (3) lacks three 5' exons but contains an alternate 5' terminal exon, and it thus differs in the 5' UTR and initiates translation at an alternate start codon, compared to variant 2. The encoded isoform (3) has a distinct N-terminus and is shorter than isoform 2. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.