

Product datasheet for **MC229378**

Dab2ip (NM_001290640) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Dab2ip (NM_001290640) 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: >MC229378 representing NM_001290640
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGGCCTCTGTGGCCTTGGACTCCTCGGTGACAACCTTGGCAAGATCCTGTGCTGGTCTGGAGGTGCCA
CTCTCTGGAGGCCAGCCATCCTCGGAAGCCTCATCTGGTCTGGCCCTCAGATGCCAGGTCCCATCT
GATGCCAAGGCTGAAGGAGTCTCGGTACACGAGTCCCTGCTCAGCCCCAGCAGCGCAGTGGAGGCCCTG
GACCTCAGCATGGAGGAGGAGGTGATTATCAAGCCGTTACAGCAGCATCCTGGGTGAGGACTACTGCT
TCGAGGTGACAACATCATCAGGAAGCAAGTGTTCCTGCCGGTTCAGCCGCTGAGCGCGATAAGTGGAT
GGAGAACCTGAGGCGAGCAGTGCACCCCAAGGACAACAGCCGGCGTGTGGAGCATATCCTGAAGCTG
TGGGTGATTGAGGCCAAGGATCTGCCGGCAAGAAGAAGTATCTATGTGAAGTGTGCTGGACGATGTGC
TGATGCCCGTACCACAAGCAAGCTCAAGACGGACAATGTCTTCTGGGGAGAGCACTTTGAGTCCATAA
CCTGCCGCTCTACGCACAGTCACTGTGCACCTGTATCGGGAGACTGACAAGAAAAAGAAAAAGAACGC
AACAGTACCTGGGCCTGGTGGCCTGCCTGCCGCTCTGTGGCTGGGCGGCAGTTGTGGAGAAGTGGT
ACCCAGTGGTGACACCAACCCCAAGGGTGGCAAGGCCCTGGGCCATGATCCGAATCAAGGCACGTA
CCAGACCGTCAGCATCTTGCCATGGAGATGTACAAGGAGTTTGGCGGAGCACATCACTAACCCTACCTG
GGGCTGTGCGCAGCCCTGGAACCCATCCTCAGTGCCAAGACCAAGGAGGAGATGGCGTCGGCTCTGGTGC
ACATCCTGCAGAGCACGGGAAAGGTGAAGGACTTTCTAACAGACCTGATGATGTCAGAGGTGGACCGCTG
TGGGGACAATGAGCACCTCATCTCCGGGAGAACAACACTGGCCACCAAGGCCATCGAGGAATACCTCAA
CTTGTGGGCCAGAAGTACCTGCAGGACGCACTAGGTGAGTTCATCAAAGCTCTGTATGAGTCAGATGAAA
ATTGTGAAGTGGACCAAGCAAGTGTCTATCCGCTGACCTCCCTGAGCACCAGGGCAACCTCAAGATGTG
CTGTGAGCTGGCCTTCTGCAAGATCATCAACTCCTACTGCGTCTCCACGGGAGCTTAAGGAGGTGTC
GCCTCATGGCGCAGGAGTGTAGCAGCCGAGGCCGGCCAGATATCAGTGAACGGCTCATCAGCGCCTCCC
TCTTCCTTCGCTTCTGTGCCCTGCCATCATGTACCCTCGCTCTCAACCTGCTTCAGGAGTATCCTGA
CGACCGCAGGGCTCGCACCTCACGCTCATTGCCAAAGTACCCAGAACCTGGCCAACTTTGCCAAGTTT
GGCAGCAAGGAAGAATACATGTCCTTCATGAACAGTTCCTGGAGCACGAGTGGACCAACATGCAGCGCT



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TCCTGTTGGAGATCTCCAACCCCGAGACCTTTCCAACACAGCAGGCTTCGAGGGCTACATAGACCTGGG
 CCGGGAGCTCTAGCCTGCACTCCCTGCTCTGGGAAGCTGTGAGCCAGCTTGATCAGAGCGTTGTGTCG
 AAGCTGGGACCTCTGCCTCGTATCTGAGGGATGTCCACACAGCACTGAGCACTCCTGGCAGTGGGCAGC
 TCCCTGGCACCAATGACCTGGCTCCACCCGGGCTCCGGCAGCAGCAGCGTCTCTGCTGGGCTTCAGAA
 GATGGTGATTGAAAATGACCTCTCTGGTCTGATAGATTTACCCGGTTACCGTCTCCAACCCCGAAAAAC
 AAGGACTTGTTTTTGTCAAGGTCTCCGGGGTCCAGCCTTACCTGCCCGCAGCTCAAGCTACTCAG
 AAGCCAATGAACCTGACCTGCAGATGGCCAATGGCAGCAAGAGCCTGTCCATGGTGGACCTCCAGGACGC
 CCGCACGCTGGATGGGGAGGCAGGTTCCCCAGTGGGCCAGACGCCCTACCTGCTGACGGGCAGGTGCCT
 GCGACTCAGCTGCTGGCTGGGTGGCCAGCCAGGGCAGCCCAAGTGAAGCTGGCAGGATTGGCCACAGTGC
 GGCGGGCAGTGCCAACACCAACCACACCAGGCACCTCCGAGGGTGCACCAGGACGGCCCCAGTTGTTGGC
 CCCACTTTCCTCCAGAATCCTGTGTACCAGATGGCGGCCGGCCTGCCACTGTACCCCCGTGGCCTTGGT
 GACTCAGGCTCTGAAGGCCACAGCTCCCTGAGCTCTCACAGCAACAGTGAAGAGCTGGCAGCCGCTGCCA
 AACTAGGAAGTTTCAGCACTGCTGCAGAGGAGCTGGCAAGGCGGCCTGGAGAAGTGGCACGGAGGCAGAT
 GTCAGTACTGAGAAGGGTGGGCAGCCACAGTCCGAGGCAAAATAGTCCGGTCCCAGCGGAGGATT
 GACCAGCCGCCACCGCCACCACCACCGCCTCTGCTCCCGGGCAGGACACCTCCTACCCTGTGA
 GCACCCTACAGTACCCAGACCTCAAGTGGAAACCTGGCATCAGCATCCCCGACTGGGCTGGCCCTGG
 CACCCGGCTGCGCAACAGTCCCTCCTCCAAGGGAGACAGCCAGAGCTGAAGCCCCGAGCCATGCAC
 AAGCAGGGCCCTTACCCGTGAGTCCCAATGCCCTGGACCGCACGGCCGCTTGGCTCTTGACCATGAACG
 CGCAGTTGTTAGAAGACGAGGGTCTGGGCCAGATCCCCCCACAGGGATAGGCTAAGGAGTAAGGAGGA
 ACTCAGCAAGCAGAAAAGGATCTGGCAGTGTACAAGACAAGCTACGGATCTCCACCAAGAAGCTGGAG
 GAGTATGAGACCTATTCAAGTGCCAGGAGGAGACGACGAGAAGCTGGTGTGGAGTATCAGGCTCGGC
 TGAAGAAGGTGAGGAGCGGCTGCGCGGCAGCAGGAAGACAAGGATATCCAGATGAAAGGCATCATCAG
 CAGGTTGATGTCAGTGGAAAGAAGAACTGAAGAAGGATCATGCAGAGATGCAAGCAGCTGTAGATTCCAAA
 CAGAAGATCATCGATGCCAGGAAAAGCCATTGCCCTCGCTGGATGCTGCCAATGCCCGCTCATGAGTG
 CCCTCACACAGCTGAAAGAGAGGTACAGCATGCAAGCCGTAACGGCGTCTCCCCACCAACCCACCAA
 ATTGCAGATTACTGAGAAGCGGAGTTCAGAAACAGCAGCAATTGTTAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_001290640
- Insert Size:** 3339 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).
- OTI Annotation:** Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
- 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_001290640.1](#), [NP_001277569.1](#)

RefSeq Size: 6380 bp

RefSeq ORF: 3339 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 (5) 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 (5) 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.