

## Product datasheet for **MC223888**

### Dab2ip (NM\_001114124) Mouse Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Dab2ip (NM\_001114124) 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:** >MC223888 representing NM\_001114124  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGTCCGCGCGGCCAACGCCAGGAAGAGCACCGGGAGGCCATCCTACTACTACCGGCTGCTGCGGCGGC  
 CCCGGTGCAGCGACAGAGGAGCCGCTCCCGCAGCCGGACCCGGCCAGCCAGGGAGTCGCCCAAGAAAG  
 GCCGGGCTCCCGCGGAGCCTTCCCGGCAGCATGTCAGAGAAAAACCCAGCATGGAGCCCTCGGCTTCA  
 ACCCGTTCCGGGTACGGGCTTCTCAGCCGCCGCTCAAGGGTCCATCAAGCGCACCAAGAGCCAGC  
 CCAAACCTGGACCGCAACACAGCTTCCGCCACATCCTGCCGGGTTCCGGAGCGCAGCCGCCGCCCGC  
 GGACAATGAGAGGTCCCATCTGATGCCAAGGCTGAAGGAGTCTCGGTACACGAGTCCCTGCTCAGCCCC  
 AGCAGCGCAGTGGAGGCCCTGGACCTCAGCATGGAGGAGGAGGTGATTATCAAGCCGTTACAGCAGCA  
 TCCTGGGTGAGGACTACTGCTTCGAGGTGACAACATCATCAGGAAGCAAGTGTTCCTGCCGGTCAGC  
 CGCTGAGCGGATAAGTGGATGGAGAACCTGAGGCGAGCAGTGCACCCCAACAAGGACAACAGCCGGCGT  
 GTGGAGCATATCCTGAAGCTGTGGGTGATTGAGCCAAGGATCTGCCGGCAAGAAGAAGTATCTATGTG  
 AACTGTGCCTGGACGATGTGCTGTATGCCCGTACCACAAGCAAGCTCAAGACGGACAATGTCTTCTGGGG  
 AGAGCACTTTGAGTTCCATAACCTGCCGCTCTACGCACAGTCACTGTGCACCTGTATCGGGAGACTGAC  
 AAGAAAAAGAAAAAGGAACGCAACAGCTACCTGGCCTGGTGAAGCCTGCCTGCCGCTCTGTGGCTGGGC  
 GGCAGTTTGTGGAGAAGTGGTACCCAGTGGTACACCCCAACCCCAAGGTTGGCAAAGGCCCTGGGCCAT  
 GATCCGAATCAAGGCACGCTACCAGACCGTCAGCATCTTGCCATGGAGATGTACAAGGAGTTTGGCGAG  
 CACATCACTAACCCTACCTGGGCTGTGCGCAGCCCTGGAACCCATCCTCAGTGCCAAGACCAAGGAGG  
 AGATGGCGTCGGCTCTGGTGCACATCCTGCAGAGCACGGAAAGGTGAAGGACTTCTAACAGACCTGAT  
 GATGTGAGAGGTGACCGCTGTGGGACAATGAGCACCTCATCTCCGGGAGAACACTGGCCACCAAG  
 GCCATCGAGGAATACCTCAAACCTGTGGCCAGAAGTACCTGCAGGACGCACTAGGTGAGTTCATCAAAG  
 CTCTGTATGAGTCAGATGAAAATGTGAAGTGGACCAAGCAAGTGTCTATCCGCTGACCTCCCTGAGCA  
 CCAGGGCAACCTCAAGATGTGCTGTGAGCTGGCCTTCTGCAAGATCATCAACTCCTACTGCGTCTCCCA  
 CCGGAGCTTAAGGAGGTGTTGCGCTCATGGCGCAGGAGTGTAGCAGCCGAGCCGGCCAGATATCATGTG



AACGGCTCATCAGCGCCTCCCTCTTCCTTCGCTTCTGTGCCCTGCCATCATGTCAACCCTCGCTCTTCAA  
 CCTGCTTCAGGAGTATCCTGACGACCGCACGGCTCGCACCCCTCACGCTCATTGCCAAAGTCACCCAGAAC  
 CTGGCCAACTTTGCCAAGTTTGGCAGCAAGGAAGAATACATGTCTTCATGAACCAAGTTCCTGGAGCAGC  
 AGTGGACCAACATGCAGCGCTTCTCTGTTGGAGATCTCCAACCCCGAGACCCTTTCCAACACAGCAGGCTT  
 CGAGGGCTACATAGACCTGGGCCGGGAGCTCTCTAGCCTGCACTCCCTGCTCTGGGAAGCTGTGAGCCAG  
 CTTGATCAGAGCGTTGTGTGCAAGCTGGGACCTCTGCCTCGTATCCTGAGGGATGTCCACACAGCACTGA  
 GCACTCCTGGCAGTGGGAGCTCCCTGGCACCAATGACCTGGCCTCCACCCCGGGCTCCGGCAGCAGCAG  
 CGTCTCTGCTGGGCTTCAAGAAGATGGTGATTGAAAATGACCTCTCTGGTCTGATAGATTTACCCGGTTA  
 CCGTCTCCAACCCCGAAAAACAAGGACTTGTTTTTGTACAAGGTCTCCGGGGTCCAGCCTTACCTG  
 CCCGCAGCTCAAGCTACTCAGAAGCCAATGAACCTGACCTGCAGATGGCCAATGGCAGCAAGAGCCTGTC  
 CATGGTGGACCTCCAGGACGCCGCAGCTGGATGGGGAGGCAGGTTCCCAAGTGGGCCAGACGCCCTA  
 CCTGCTGACGGGCAGGTGCCTGCGACTCAGCTGCTGGTGGTGGCCAGCCAGGGCAGCCCCAGTGAGCC  
 TGGCAGGATTGGCCACAGTGGCGGGCAGTGCCAACACCAACCACAGGCACCTCCGAGGGTGCACC  
 AGGACGGCCCCAGTTGTGGCCCCACTTCTTCCAGAATCCTGTGTACCAGATGGCGGGCCGCCTGCCA  
 CTGTCACCCCGTGGCCTTGGTACTCAGGCTCTGAAGGCCACAGCTCCCTGAGCTCTCACAGCAACAGTG  
 AAGAGCTGGCAGCCGCTGCCAACTAGGAAGTTTCAGCACTGCTGCAGAGGAGCTGGCAAGCGGCCCTGG  
 AGAACTGGCACGGAGGCAGATGTCACTGACTGAGAAGGGTGGGCAGCCCACAGTGCCGAGGCAAAAATAGT  
 GCCGGTCCCAGCGGAGGATTGACCAGCCGCCACCGCCACCACCACCACCGCCTCCTGCTCCCCGGGGCA  
 GGACACCTCCTACCCTGCTGAGCACCTACAGTACCCAGACCCTCAAGTGAACCCTGGCATCAGCATC  
 CCCCAGCTGGGCTGGCCCTGGCACCCGGCTGGGCAACAGTCTCCTCCTCCAAGGGAGACAGCCCAGAG  
 CTGAAGCCCCGAGCCATGCACAAGCAGGGCCCTTACCCGTCAGTCCCAATGCCCTGGACCCGACGGCCG  
 CTTGGCTTTGACCATGAACGCGCAGTTGTTAGAAGACGAGGGTCTGGGCCAGATCCCCCCACAGGGA  
 TAGGCTAAGGAGTAAGGAGGAACTCAGCCAAGCAGAAAAGGATCTGGCAGTGTACAAGACAAGCTACGG  
 ATCTCCACCAAGAAGCTGGAGGAGTATGAGACCCTATTCAAGTGCCAGGAGGAGACGACGAGAAGCTGG  
 TGCTGGAGTATCAGGCTCGGCTGGAAGAAGGTGAGGAGCGGCTGCGGCGGACGAGGAAGACAAGGATAT  
 CCAGATGAAAGGCATCATCAGCAGGTTGATGTCAGTGGAAAGAAGAACTGAAGAAGGATCATGCAGAGATG  
 CAAGCAGCTGTAGATTCCAAACAGAAGATCATCGATGCCAGGAAAAGCGCATTGCCTCGCTGGATGCTG  
 CCAATGCCCGCTCATGAGTGCCTCACACAGCTGAAAGAGAGGTACAGCATGCAAGCCCGTAACGGCGT  
 CTCGCCACCAACCCACCAAATTCAGATTACTGAGAACGGCGAGTTACAGAAACAGCAGCAATTGTAA

ACGGCTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM\_001114124
- Insert Size:** 3570 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\\_001114124.2](#), [NP\\_001107596.1](#)

**RefSeq Size:** 6540 bp

**RefSeq ORF:** 3570 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 (2) encodes the longest isoform (2).