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Product datasheet for MC229418

Dab2ip (NM_001290637) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Dab2ip (NM_001290637) 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:	>MC229418 representing NM_001290637 Red=Cloning site Blue=ORF Orange=Stop codon TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGTCAGAGAAAAACCCCAGCATGGAGCCCTCGGCTTCAACCCCGTTCCGGGTCACGGGCTTCCTCAGCC GCCGCCTCAAGGGCTCCATCAAGCGCACCAAGAGCCAGCCCAAACTGGACCGCAACCACAGCTTCCGCCA CATCCTGCCGGGGTTCCGGAGCGCAGCCGCCGCCGCCGCGGACAATGAGAGGTCCCATCTGATGCCAAGG CTGAAGGAGTCTCGGTCACACGAGTCCCTGCTCAGCCCCAGCAGCGCAGTGGAGGCCCTGGACCTCAGCA TGGAGGAGGAGGTGATTATCAAGCCCGTTCACAGCAGCATCCTGGGTCAGGACTACTGCTTCGAGGTGAC AACATCATCAGGAAGCAAGTGTTTTTCCTGCCGGTCAGCCGCTGAGCGCGATAAGTGGATGGAGAACCTG AGGCGAGCAGTGCACCCCAACAAGGACAACAGCCGGCGTGTGGAGCATATCCTGAAGCTGTGGGTGATTG AGGCCAAGGATCTGCCGGCCAAGAAGAAGTATCTATGTGAACTGTGCCTGGACGATGTGCTGTATGCCCG TACCACAAGCAAGCTCAAGACGGACAATGTCTTCTGGGGAGAGCACTTTGAGTTCCATAACCTGCCGCCT CTACGCACAGTCACTGTGCACCTGTATCGGGAGACTGACAAGAAAAAGAAAAAGGAACGCAACAGCTACC TGGGCCTGGTGAGCCTGCCTGCCGCCTCTGTGGCTGGGCGGCAGTTTGTGGAGAAGTGGTACCCAGTGGT GACACCCAACCCCAAGGGTGGCAAAGGCCCTGGGCCCATGATCCGAATCAAGGCACGCTACCAGACCGTC AGCATCTTGCCTATGGAGATGTACAAGGAGTTTGCGGAGCACATCACTAACCACTACCTGGGGCTGTGCG CAGCCCTGGAACCCATCCTCAGTGCCAAGACCAAGGAGGAGATGGCGTCGGCTCTGGTGCACATCCTGCA GAGCACGGGAAAGGTGAAGGACTTTCTAACAGACCTGATGATGTCAGAGGTGGACCGCTGTGGGGACAAT GAGCACCTCATCTTCCGGGAGAACACACTGGCCACCAAGGCCATCGAGGAATACCTCAAACTTGTGGGCC AGAAGTACCTGCAGGACGCACTAGGTGAGTTCATCAAAGCTCTGTATGAGTCAGATGAAAATTGTGAAGT GGACCCAAGCAAGTGCTCATCCGCTGACCTCCCTGAGCACCAGGGCAACCTCAAGATGTGCTGTGAGCTG GCCTTCTGCAAGATCATCAACTCCTACTGCGTCTTCCCACGGGAGCTTAAGGAGGTGTTCGCCTCATGGC GGCAGGAGTGTAGCAGCCGAGGCCGGCCAGATATCAGTGAACGGCTCATCAGCGCCTCCCTCTTCCTTCG CTTCCTGTGCCCTGCCATCATGTCACCCTCGCTCTTCAACCTGCTTCAGGAGTATCCTGACGACCGCACG GCTCGCACCCTCACGCTCATTGCCAAAGTCACCCAGAACCTGGCCAACTTTGCCAAGTTTGGCAGCAAGG

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AAGAATACATGTCCTTCATGAACCAGTTCCTGGAGCACGAGTGGACCAACATGCAGCGCTTCCTGTTGGA
GATCTCCAACCCCGAGACCCTTTCCAACACAGCAGGCTTCGAGGGCTACATAGACCTGGGCCGGGAGCTC
TCTAGCCTGCACTCCCTGCTCTGGGAAGCTGTCAGCCAGCTTGATCAGAGCGTTGTGTCGAAGCTGGGAC
CTCTGCCTCGTATCCTGAGGGATGTCCACACAGCACTGAGCACTCCTGGCAGTGGGCAGCTCCCTGGCAC
CAATGACCTGGCCTCCACCCCGGGCTCCGGCAGCAGCAGCGTCTCTGCTGGGCTTCAGAAGATGGTGATT
GAAAATGACCTCTCTGGTCTGATAGATTTCACCCGGTTACCGTCTCCAACCCCCGAAAACAAGGACTTGT
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TGCTGGCTGGGTGGCCAGCCAGGGCAGCCCCAGTGAGCCTGGCAGGATTGGCCACAGTGCGGCGGGCAGT
GCCAACACCAACCACACCAGGCACCTCCGAGGGTGCACCAGGACGGCCCCAGTTGTTGGCCCCACTTTCC
TTCCAGAATCCTGTGTACCAGATGGCGGCCGGCCTGCCACTGTCACCCCGTGGCCTTGGTGACTCAGGCT
CTGAAGGCCACAGCTCCCTGAGCTCTCACAGCAACAGTGAAGAGCTGGCAGCCGCTGCCAAACTAGGAAG
TTTCAGCACTGCTGCAGAGGAGCTGGCAAGGCGGCCTGGAGAACTGGCACGGAGGCAGATGTCACTGACT
GAGAAGGGTGGGCAGCCCACAGTGCCGAGGCAAAATAGTGCCGGTCCCCAGCGGAGGATTGACCAGCCGC
CACCGCCACCACCACCACCGCCTCCTGCTCCCCGGGGCAGGACACCTCCTACCCTGCTGAGCACCCTACA
GTACCCACGACCCTCAAGTGGAACCCTGGCATCAGCATCCCCCGACTGGGCTGGCCCTGGCACCCGGCTG
CGGCAACAGTCCTCCTCCTCCAAGGGAGACAGCCCAGAGCTGAAGCCCCGAGCCATGCACAAGCAGGGCC
CTTCACCCGTCAGTCCCAATGCCCTGGACCGCACGGCCGCTTGGCTCTTGACCATGAACGCGCAGTTGTT
AGAAGACGAGGGTCTGGGCCCAGATCCCCCCCACAGGGATAGGCTAAGGAGTAAGGAGGAACTCAGCCAA
GCAGAAAAGGATCTGGCAGTGCTACAAGACAAGCTACGGATCTCCACCAAGAAGCTGGAGGAGTATGAGA
CCCTATTCAAGTGCCAGGAGGAGACGACGCAGAAGCTGGTGCTGGAGTATCAGGCTCGGCTGGAAGAAGG
TGAGGAGCGGCTGCGGCGGCAGCAGGAAGACAAGGATATCCAGATGAAAGGCATCATCAGCAGGTTGATG
TCAGTGGAAGAAGAACTGAAGAAGGATCATGCAGAGATGCAAGCAGCTGTAGATTCCAAACAGAAGATCA
TCGATGCCCAGGAAAAGCGCATTGCCTCGCTGGATGCTGCCAATGCCCGCCTCATGAGTGCCCTCACACA
GCTGAAAGAGAGCAACGGCTTGGGGCGTCTGAGCTCTGCTTACAGCAAGGGCTGGAGTTGCCAGAGGCCC
TGCTCTGGGAAGACCCTGGCCACTGACACCCAAGATCTGATGGAGAGAGCGGCCCCACCCTTGCCAACAC
AGACACCTGACCTTTTTGTTCAACTTGTGTGTTAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_001290637

Insert Size: 3465 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_001290637.1, NP_001277566.1
RefSeq Size:	4152 bp
RefSeq ORF:	3465 bp
Locus ID:	69601
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 (4) contains an alternate 5' terminal exon, and it thus differs in the 5' UTR and initiates translation at a downstream in-frame start codon, and it also lacks a 3' segment that results in an alternate 3' coding region, compared to variant 2. The encoded isoform (4) is shorter at the N-terminus and has a distinct C-terminus, compared to 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.