

Product datasheet for **MR230499**

Tiam2 (NM_001286758) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tiam2 (NM_001286758) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Tiam2
Synonyms:	3000002F19Rik; mKIAA2016; STEF
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>MR230499 representing NM_001286758
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGTCACTTTTTGGGAGCCTGCCAGAGATGCTGGAGTTTCAAAGGTGTTCTCTGGAGACGTTGGAGG
 ATGCGATCTCCGCTTCTCGGACTTTAGTGTCTGGAAACCCCTCACAGTTTCGAAAATTGCTGTTCTC
 CCTTGGAGTTCTTCTCTACTATGCGGATCACTTTAAGCTATACAGTGGGTTCTGTGCCAACACATT
 AAAGTACAGAGGTTCTAGAGCGAGCTAAAACGGACAAGGCCTTCAAGGCTTTTCTGGATGCCCCAAATC
 CCACCAAGCAGCACTCTCCACGCTGGAGTCTATCTCATCAAGCCTGTTAGAGAGTGTCTCAAGTATCC
 TCTGCTTCTCAAGGAGCTAGTGTCACTGACTGACCATGAGAGTGAAGAACAATACACCTGACAGAAGCA
 CTAAGGCCATGGAAAAAGTCGCCAGTCACATCAATGAGATGCAGAAGATCTACGAGGATTACGGGATGG
 TGTTTGACCAGCTGGTGGCAGAGCAGAGTGGCACAGAGAAGGAAGTACAGAGCTGTCCATGGGGAACT
 TCTGATGCACTTACAGTTTCTGGTTGAATCCGTTCTGTCTCTAGGAAAAGCCAGGAAGGACATTGAG
 CTCACAGTATTTGTTTTAAGAGAGCTGTCACTGTTTATAAAGAAAAGTGAAGCTGAAAAAGAAAAC
 TGCCCTCGAATCCCGGCTGCTCACAACCTGCTGACTGGATCCATTTAAATCCGCTGGTTGATTCC
 CATATCTGCGCTTCAAGTTAGACTGGGGAACACGGCAGGACTGAAAATAATTCCACGTGGGAGCTGATT
 CATACCAAGTCGGAAATTGAAGGACGGCCAGAAACCATCTTCAACTGTGCTGCAGTGACAGCGAGAACA
 AAACCAGCATTGTTAAGGTGATTCGTTCTATTCTGAGAGAGAACTCCGGCGCCACATAAAGTGTGAGCT
 GCCACTGGAGAAGACGTGAAGGACCGCTAGTACCTTAAGAACCAGTTCCTGTTTCAGCCAAATTA
 GCCTCGTCCAGGTCGTTGAAGGGCTCAGAACATCCTCCAGCAGCGAGTGGCCAGCGAGCCAGCAAGG
 GCAACTCACTGGACTCAGATGAGTGCAGCCTGAGCAGTGGCACCCAGAGTACGCGGTGCCCGTAGCCGA
 GAGCAGGCGAGACTCTAAGAGCACCGAGCTGGAGAAAGACGCTCAGGAGGGCCTGGCGGAGTTTCCAGAT
 GGTCTTATCAAAGAAAGCGACATTCTGAGTGATGAAGATGAGGACTTCCACCACCCTGAAACAGGGTA
 GCCCTACTAAGGACATTGAGATTCAGTTCCAGAGACTGAAAATCTCTGAGGAATCCGACGTGCACCCAGT
 TGGGCAGCAGCTCTCACAGAGTCAAGTGAACAGCCCAAGCTGGTCAAGGGCCATTTTTGCCCATTA
 CGGAAAGCAAACAGCACCAAGAGGGGCAGAGGAACTTTGCTCAAGGCGCAGACTCGTACCAGTCCCTGG
 ACAGCCACCCAGAACTGCCAGCATTGATCTAACTTGGTCTGGAGAGAGAATTCAGTGTCCAGAGCTT
 AACTTCAGTCGTCATGAGGAGGTTTTATGAAACACAGAGCCATGGCAAATCA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR230499 representing NM_001286758
 Red=Cloning site Green=Tags(s)

MESLFGSLPEMLEFQKVFLETLEDAISASSDFSVLETSPQFRKLLFSLGGSFLLYADHFKLYSGFCANHI
 KVQRVLERAKTDKAFKAFLDARNPTKQHSSTLESYL IKPVQRVLKYPLLLKELVSLTDHESEEHYHLTEA
 LKAMEKVASHINEMQKIYEDYGMVFDQLVAEQSGTEKEVTELSMGELLMHSTVSWLNPFLSLGKARKDIE
 LTVFVFKRAVILVYKENCKLKKKLPNSRPAHNSADLDPFKFRWLIPISALQVRLGNTAGTENNSTWELI
 HTKSEIEGRPETIFQLCCSDSENKTSIVKVIRSLRENFRRIKCELEPLEKTCKDRLVPLKNRVPVSAKL
 ASSRSLKGLRTSSSEWPSEPSKGNLSDSECSLSSGTQSSGCPVAESRRDSKSTELEKDAQEGLAEFPD
 GLIKESDILSDEDEDFFHPLKQGSPTKDIEIQFQRLKISEESDVHPVGGQPLTESGEQPKLVRGHFCP
 IRIKANSTKRGRGTLKLAQTRHQSLDHPETASIDLNLVLEREFVQSLTSVVNEEGFYETQSHGKS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

ACCN:	NM_001286758
ORF Size:	1665 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_001286758.1 , NP_001273687.1
RefSeq Size:	2550 bp
RefSeq ORF:	1668 bp
Locus ID:	24001
UniProt ID:	Q6ZPF3
Cytogenetics:	17 1.99 cM
MW:	63.1 kDa
Gene Summary:	Modulates the activity of RHO-like proteins and connects extracellular signals to cytoskeletal activities. Acts as a GDP-dissociation stimulator protein that stimulates the GDP-GTP exchange activity of RHO-like GTPases and activates them. Activates specifically RAC1, but not CDC42 and RHOA. Mediates extracellular laminin signals to activate Rac1, contributing to neurite growth. Involved in lamellipodial formation and advancement of the growth cone of embryonic hippocampal neurons. Promotes migration of neurons in the cerebral cortex. When overexpressed, induces membrane ruffling accompanied by the accumulation of actin filaments along the altered plasma membrane.[UniProtKB/Swiss-Prot Function]