

## Product datasheet for **RC208522**

### **TAB1 (NM\_006116) Human Tagged ORF Clone**

#### **Product data:**

|                    |                                         |
|--------------------|-----------------------------------------|
| Product Type:      | Expression Plasmids                     |
| Product Name:      | TAB1 (NM_006116) Human Tagged ORF Clone |
| Tag:               | Myc-DDK                                 |
| Symbol:            | TAB1                                    |
| Synonyms:          | 3'-Tab1; MAP3K7IP1                      |
| Vector:            | pCMV6-Entry (PS100001)                  |
| E. coli Selection: | Kanamycin (25 ug/mL)                    |
| Cell Selection:    | Neomycin                                |



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ORF Nucleotide  
Sequence:

>RC208522 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGGCGGCGCAGAGGAGGAGCTTCTGTCAGAGTGAAGCAGCAAGCTGGACAGATGACCTGCCTCTCT  
GCCACCTCTCTGGGGTTGGCTCAGCCTCCAACCGCAGCTACTCTGCTGATGGCAAGGGCACTGAGAGCCA  
CCCGCCAGAGGACAGCTGGCTCAAGTTCAGGAGTGAGAACAACCTGCTTCCTGTATGGGGTCTTCAACGGC  
TATGATGGCAACCGAGTGACCAACTTCGTGGCCAGCGGCTGTCCGACAGACTCCTGCTGGGCCAGCTGA  
ATGCCGAGCAGCCGAGGCCGATGTGCGGCGTGTGCTGCTGCAGGCCCTCGATGTGGTGGAGAGGAGCTT  
CCTGGAGTCCATTGACGACGCCTTGGCTGAGAAGGCAAGCCTCCAGTCGCAATTGCCAGAGGGAGTCCCT  
CAGCACCAGCTGCCTCCTCAGTATCAGAAGATCCTTGAGAGACTCAAGACGTTAGAGAGGGAAATTTCCG  
GAGGGGCCATGGCCGTTGTGGCGTCTTCTCAACAACAAGCTCTACGTCGCCAATGTCGGTACAAACCG  
TGCACTTTTATGCAAATCGACAGTGGATGGGTTGCAGGTGACACAGCTGAACGTGGACCACACCACAGAG  
AACGAGGATGAGCTCTTCGCTCTTCGACGCTGGGCTTGATGCTGGAAAGATCAAGCAGGTGGGGATCA  
TCTGTGGGCGAGGAGACACCCGGCGGATCGGGGATTACAAGTTAAATATGGCTACACGGACATTGACCT  
TCTCAGCGCTGCCAAGTCAAACCAATCATCGCAGAGCCAGAAATCCATGGGGCACAGCCGCTGGATGGG  
GTGACGGGCTTCTTGGTCTGATGTGCGAGGGGTTGTACAAGGCCCTAGAGGCAGCCATGGGCCTGGGC  
AGGCCAACCGAGGATGCTGCGATGATTGACACTGAGTTTGCCAAGCAGACCTCCCTGGACGCAGTGGC  
CCAGGCCGTCGTGGACCGGGTGAAGCGCATCCACAGCGACACCTTCGCCAGTGGTGGGAGCGTGCCAGG  
TTCTGCCCCGGCAGGAGACATGACCTGTAGTGAGGAACCTTGGCTACCCGCTGGGCGAAATGAGCC  
AGCCCCACCCAGCCAGCCAGCTGACAGGAGGACGAGTGTACCCTGTGTCTGTGCCATACTCCAGCGC  
CCAGAGCACAGCAAGACCGAGCTGACCCCTCTCCCTTGTATGCCCTCCAGGGCCAGATGGTCAACGGG  
GCTCACAGTGTTCCACCCTGGACGAAGCCACCCCAACCTCACCAACCAAGCCGACCTTAACCTGTC  
AGTCCACCAACACGCACACGCAGAGCAGCAGCTCCAGCTCTGACGGAGGCTCTTCCGCTCCCGGCCCGC  
CCACTCGCTCCCGCTGGCGAGGACGGTCTGTTGAGCCCTATGTGGACTTTGCTGAGTTTTACCGCCTC  
TGGAGCGTGGACCATGGCGAGCAGAGCGTGGTGCAGCACC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

## Protein Sequence:

>RC208522 protein sequence  
Red=Cloning site Green=Tags(s)

MAAQRRLQSEQQPSWTDLPLCHLSGVGSASNRSYSADGKGTESHPPEDSWLKFRSENNCFLYGVFNG  
YDGNRVTNFVAQRLSAELLLGQLNAEHAADVRRVLLQAFDVVERSFLIESIDDALAEKASLQSQLPEGVP  
QHQLPPQYQKILERLKLTEREISGGAMAVVAVLLNNKLYVANVTNRALLCKSTVDGLQVTQLNVDHTTE  
NEDELFRLSQLGLDAGKIKQVGIICQESTRRIGDYKVKYGYTDIDLLSAAKSKPIIAEPEIHGAQPLDG  
VTGFVLMSEGLYKALEAAHGPGQANQIEAAMIDTEFAKQTSLDVAQAQVVDVVKRIHSDTFASGGERAR  
FCPRHEDMTLLVRNFGYPLGEMSQTPSPAPAAGGRVYPVSVPYSSAQSTSKTSVTLSLVMP SQGMVNG  
AHSASTLDEATPTLTNQSPTLTLQSTNHTQSSSSSDGGLFRSRPAHSLPPGEDGRVPEYVDFAEFYRL  
WSVDHGEQSVVTAP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

## Chromatograms:

[https://cdn.origene.com/chromatograms/mk6091\\_c05.zip](https://cdn.origene.com/chromatograms/mk6091_c05.zip)

## Restriction Sites:

Sgfl-Mlul

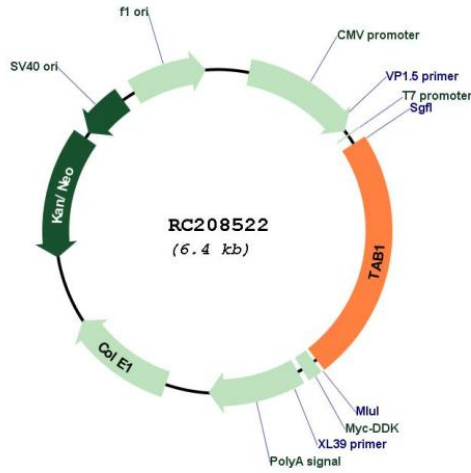
Cloning Scheme:

Cloning sites used for ORF Shutting:



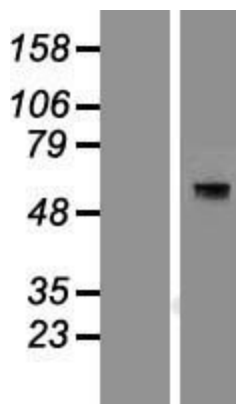
\* The last codon before the Stop codon of the ORF

Plasmid Map:

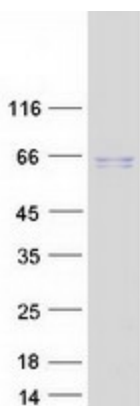


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|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ACCN:</b>             | NM_006116                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>ORF Size:</b>         | 1512 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>OTI Disclaimer:</b>   | <p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p> |
| <b>OTI Annotation:</b>   | This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>RefSeq:</b>           | <a href="#">NM_006116.3</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>RefSeq Size:</b>      | 3240 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>RefSeq ORF:</b>       | 1515 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Locus ID:</b>         | 10454                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Domains:</b>          | PP2C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Protein Families:</b> | Druggable Genome                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Protein Pathways:</b> | MAPK signaling pathway, NOD-like receptor signaling pathway, Toll-like receptor signaling pathway                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>MW:</b>               | 54.6 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Gene Summary:</b>     | <p>The protein encoded by this gene was identified as a regulator of the MAP kinase kinase kinase MAP3K7/TAK1, which is known to mediate various intracellular signaling pathways, such as those induced by TGF beta, interleukin 1, and WNT-1. This protein interacts and thus activates TAK1 kinase. It has been shown that the C-terminal portion of this protein is sufficient for binding and activation of TAK1, while a portion of the N-terminus acts as a dominant-negative inhibitor of TGF beta, suggesting that this protein may function as a mediator between TGF beta receptors and TAK1. This protein can also interact with and activate the mitogen-activated protein kinase 14 (MAPK14/p38alpha), and thus represents an alternative activation pathway, in addition to the MAPKK pathways, which contributes to the biological responses of MAPK14 to various stimuli. Alternatively spliced transcript variants encoding distinct isoforms have been reported. [provided by RefSeq, Jul 2008]</p>                     |

## Product images:



Western blot validation of overexpression lysate (Cat# [LY416846]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208522 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TAB1 protein (Cat# [TP308522]). The protein was produced from HEK293T cells transfected with TAB1 cDNA clone (Cat# RC208522) using MegaTran 2.0 (Cat# [TT210002]).