

## Product datasheet for **RC217213**

### **TAB1 (NM\_153497) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	TAB1 (NM_153497) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TAB1
Synonyms:	3'-Tab1; MAP3K7IP1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC217213 representing NM\_153497  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCGGCGCAGAGGAGGAGCTTCTGTCAGAGTGAGCAGCAGCCAAGCTGGACAGATGACCTGCCTCTCT  
 GCCACCTCTCTGGGGTTGGCTCAGCCTCCAACCGCAGCTACTCTGCTGATGGCAAGGGCACTGAGAGCCA  
 CCCGCCAGAGGACAGCTGGCTCAAGTTCAGGAGTGAGAACAACCTGCTTCCTGTATGGGGTCTTCAACGGC  
 TATGATGGCAACCGAGTGACCAACTTCGTGGCCAGCGGCTGTCCGACAGACTCCTGCTGGGCCAGCTGA  
 ATGCCGAGCAGCCGAGGCCGATGTGCGGCGTGTGCTGCTGCAGGCCCTTCGATGTGGTGGAGAGGAGCTT  
 CCTGGAGTCCATTGACGACGCCTTGGCTGAGAAGGCAAGCCTCCAGTCGCAATTGCCAGAGGGAGTCCCT  
 CAGCACCAGCTGCCTCCTCAGTATCAGAAGATCCTTGAGAGACTCAAGACGTTAGAGAGGGAAATTCGG  
 GAGGGGCCATGGCCGTTGTGGCGTCTTCTCAACAACAAGCTCTACGTCGCCAATGTCGGTACAAACCG  
 TGCACTTTTATGCAAATCGACAGTGGATGGGTTGCAGGTGACACAGCTGAACGTGGACCACACCACAGAG  
 AACGAGGATGAGCTCTTCGCTCTTCGACAGCTGGGCTTGGATGCTGGAAAGATCAAGCAGGTGGGGATCA  
 TCTGTGGGCAGGAGAGCACCCGGCGGATCGGGGATTACAAGTTAAATATGGCTACACGGACATTGACCT  
 TCTCAGCGCTGCCAAGTCAAACCAATCATCGCAGAGCCAGAAATCCATGGGGCACAGCCGCTGGATGGG  
 GTGACGGGCTTCTTGGTCTGATGTGCGGAGGGTGTACAAGGCCCTAGAGGCAGCCATGGGCCTGGGC  
 AGGCCAACCGAGGATGCTGCGATGATTGACACTGAGTTTGCCAAGCAGACCTCCCTGGACGCAGTGGC  
 CCAGGCCGTCGTGGACCGGGTGAAGCGCATCCACAGCGACACCTTCGCCAGTGGTGGGAGCGTGCCAGG  
 TTCTGCCCCGGCAGGAGACATGACCTGCTAGTGAGGAACCTTGGCTACCCGCTGGGCGAAATGAGCC  
 AGCCCCACCCAGCCAGCCAGCTGCAGGAGGACGAGTGTACCCTGTGTCTGTGCCATACTCCAGCGC  
 CCAGAGCACAGCAAGACCAGCGTGACCTCTCCCTTGTATGCCCTCCAGGGCCAGATGGTCAACGGG  
 GCTCACAGTGTTCCACCTGGACGAAGCCACCCCAACCTCACAAAGACCTTCCAGGCTGCAAGCG  
 ATTTGACAGCCATCCCTCAGTGCCAACCTAACCTCCTGGGCAGCCTGACCCAGGG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC217213 representing NM\_153497  
 Red=Cloning site Green=Tags(s)

MAAQRRLQLQSEQQPSWTDLPLCHLSGVGSASNRSYSADGKGTESHPEDSWLKFRSENNCFLYGVFNG  
 YDGNRVTNFVAQRLSAELLLGQLNAEHAADVRRVLLQAFDVVERSFLSIDDALAEKASLQSQLPEGVP  
 QHQLPPQYQKILERLKLTEREISGGAMAVVAVLLNNKLYVANVTNRALLCKSTVDGLQVTQLNVDHTTE  
 NEDELFRLSQLGLDAGKIKQVGIICGQESTRRIGDYKVKYGYTDIDLSSAAKSKPIIAEPEIHGAQPLDG  
 VTGFLVLMSEGLYKALEAAHGPGQANQEIAAMIDTEFAKQTSLDAVAQAVVDRVKRIHSDTFASGGERAR  
 FCPRHEDMTLLVRNFGYPLGEMSQTPSPAPAAGGRVYPVSVPYSSAQSTSKTSVTLVSLVMPVSGQGMVNG  
 AHSASTLDEATPTLTKDPSRPASDLTAIPQCQLNLLGSLTPG

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk8061\\_f01.zip](https://cdn.origene.com/chromatograms/mk8061_f01.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_153497

**ORF Size:** 1386 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:**
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\\_153497.3](#)

**RefSeq Size:** 1994 bp

**RefSeq ORF:** 1389 bp

**Locus ID:** 10454

**UniProt ID:** [Q15750](#)

**Cytogenetics:** 22q13.1

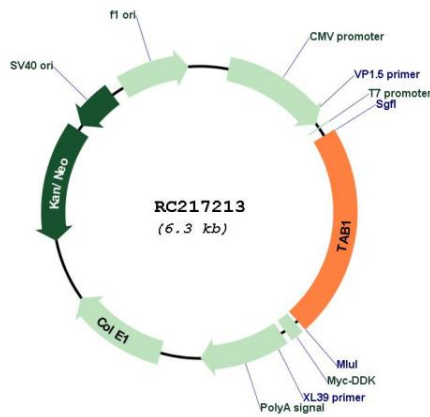
**Protein Families:** Druggable Genome

**Protein Pathways:** MAPK signaling pathway, NOD-like receptor signaling pathway, Toll-like receptor signaling pathway

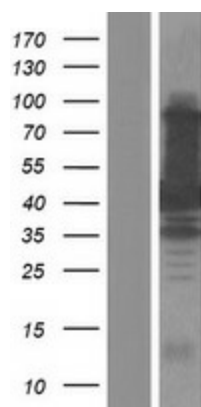
**MW:** 49.7 kDa

**Gene Summary:** 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]

**Product images:**



Circular map for RC217213



Western blot validation of overexpression lysate (Cat# [LY407014]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217213 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).