

## Product datasheet for **SC306622**

### **TAB1 (NM\_153497) Human Untagged Clone**

#### **Product data:**

|                           |                                       |
|---------------------------|---------------------------------------|
| Product Type:             | Expression Plasmids                   |
| Product Name:             | TAB1 (NM_153497) Human Untagged Clone |
| Tag:                      | Tag Free                              |
| 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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**Fully Sequenced ORF:** >SC306622 representing NM\_153497.  
Blue=Insert sequence Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGCGGCGCAGAGGAGGAGCTTGCTGCAGAGTGAGCAGCAGCCAAGCTGGACAGATGACCTGCCTCTC
TGCCACCTCTCTGGGGTTGGCTCAGCCTCCAACCGCAGTACTCTGCTGATGGCAAGGGCACTGAGAGC
CACCCGCCAGAGGACAGCTGGCTCAAGTTCAGGAGTGAGAACAACCTGCTTCTGTATGGGGTCTTCAAC
GGCTATGATGGCAACCGAGTGACCAACTTCGTGGCCAGCGGCTGTCCGACAGAGCTCTGCTGGGCCAG
CTGAATGCCGAGCAGCCGAGGCCGATGTGCGCGTGTGCTGCTGCAGGCCTTCGATGTGGTGGAGAGG
AGCTTCTGGAGTCCATTGACGACGCTTGCTGAGAAGGCAAGCCTCCAGTCGCAATTGCCAGAGGGA
GTCCCTCAGCACCAGCTGCCTCCTCAGTATCAGAAGATCCTTGAGAGACTCAAGACGTTAGAGAGGGAA
ATTTCCGGAGGGGCCATGGCCGTTGTGGCGTCTTCTCAACAACAAGCTCTACGTCGCCAATGTCGGT
ACAAACCGTGCACCTTTATGCAAAATCGACAGTGGATGGGTTGCAGGTGACACAGCTGAACGTGGACCAC
ACCACAGAGAACGAGGATGAGCTTCCGTCCTTTCGACGCTGGGCTTGGATGCTGGAAGATCAAGCAG
GTGGGGATCATCTGTGGCAGGAGAGCACCCGGCGGATCGGGGATTACAAGGTTAAATATGGCTACACG
GACATTGACCTTCTCAGCGCTGCCAAGTCCAAACCAATCATCGCAGAGCCAGAAATCCATGGGGCAGCAG
CCGCTGGATGGGGTGACGGGCTTCTTGGTGTGATGTGCGAGGGGTTGTACAAGGCCCTAGAGGCAGCC
CATGGGCTGGCAGGCCAACAGGAGATTGCTGCGATGATTGACACTGAGTTTGCCAAGCAGACCTCC
CTGGACGAGTGGCCAGGCCGTCGTGGACCGGTTGAGCGCATCCACAGCGACACCTTCGCCAGTGGT
GGGGAGCGTGCCAGGTTCTGCCCGGCACGAGGACATGACCTGCTAGTGAGGAACTTTGGCTACCCG
CTGGGCGAAATGAGCCAGCCACACCGAGCCAGCCAGCTGCAGGAGGACGAGTGTACCCTGTGTCT
GTGCCATACTCCAGCGCCAGAGCACCAGCAAGACCAGCGTGACCCTCTCCCTTGTCCCTCCCTCCAG
GGCCAGATGGTCAACGGGGCTCACAGTGTCTCCACCCTGGACGAAGCCACCCCCACCTCACCAAAGAC
CCTTCCAGGCCTGCAAGCGATTTGACAGCCATCCCTCAGTGCCAATAAACCTCCTGGGCAGCCTGACC
CCAGGGTAG
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
```

**Restriction Sites:** Sgfl-MluI

**ACCN:** NM\_153497

**Insert Size:** 1389 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:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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\\_153497.2](#)

**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:** 49.9 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]  
Transcript Variant: This variant (beta) uses an alternate exon at the 3' end compared to variant 1, which includes a part of the coding region. The resulting isoform (beta) has a distinct and shorter C-terminus, as compared to isoform alpha. The beta isoform can interact with and activate MAPK14/p38alpha, but it does not bind or activate MAP3K7/TAK1.