

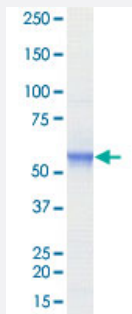
Bioactive

Full-Length

# MAP3K7/TAB1 (Human) Recombinant Protein

Catalog # P5646      Size 5 ug

## Applications



## Result of activity analysis

Result of activity analysis

## Specification

<b>Product Description</b>	Human MAP3K7 (NP_663304.1, 1 a.a. - 303 a.a.) and TAB1 (NP_006107.1, 437 a.a. - 504 a.a.) full-length recombinant protein with His tag expressed in baculovirus infected Sf21 cells.
<b>Host</b>	insect
<b>Theoretical MW (kDa)</b>	45
<b>Form</b>	Liquid
<b>Preparation Method</b>	Baculovirus infected insect cell (Sf21) expression system
<b>Purification</b>	Ni-NTA affinity chromatography
<b>Purity</b>	96 % by SDS-PAGE/CBB staining

Activity	The activity was determined by ELISA. The enzyme was incubated with GST-fused substrate protein, and after stopping kinase reaction by EDTA, the reaction solution was transferred into glutathione-coated plate. Phosphorylation was detected by anti-phospho antibody and HRP-labeled anti-rabbit IgG (or HRP-labeled anti-mouse IgG). Substrate: MAP2K7 [inactive mutant]. ATP: 100 uM.
Quality Control Testing	Loading 1 ug protein in SDS-PAGE
Storage Buffer	In 50 mM Tris-HCl, 150 mM NaCl, pH 7.5 (0.05% Brij35, 1 mM DTT, 10% glycerol)
Storage Instruction	Store at -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Result of activity analysis Result of activity analysis

## Applications

- Functional Study
- SDS-PAGE

## Gene Info — MAP3K7

Entrez GeneID	<a href="#">6885</a>
Protein Accession#	<a href="#">NP_663304.1 (Gene ID : 6885);NP_006107.1 (Gene ID : 10454)</a>
Gene Name	MAP3K7
Gene Alias	TAK1, TGF1a
Gene Description	mitogen-activated protein kinase kinase kinase 7
Omim ID	<a href="#">602614</a>
Gene Ontology	<a href="#">Hyperlink</a>
Gene Summary	The protein encoded by this gene is a member of the serine/threonine protein kinase family. This kinase mediates the signaling transduction induced by TGF beta and morphogenetic protein (BMP), and controls a variety of cell functions including transcription regulation and apoptosis. In response to IL-1, this protein forms a kinase complex including TRAF6, MAP3K7P1/TAB1 and MAP3K7P2/TAB2; this complex is required for the activation of nuclear factor kappa B. This kinase can also activate MAPK8/JNK, MAP2K4/MKK4, and thus plays a role in the cell response to environmental stresses. Four alternatively spliced transcript variants encoding distinct isoforms have been reported. [provided by RefSeq]

## Other Designations

OTTHUMP00000016870|OTTHUMP00000016871|OTTHUMP00000016872|OTTHUMP00000016873|TGF-beta activated kinase 1|transforming growth factor-beta-activated kinase 1

## Gene Info — MAP3K7IP1

## Entrez GeneID

[10454](#)

## Protein Accession#

[NP\\_663304.1 \(Gene ID : 6885\);NP\\_006107.1 \(Gene ID : 10454\)](#)

## Gene Name

MAP3K7IP1

## Gene Alias

3'-Tab1, MGC57664, TAB1

## Gene Description

mitogen-activated protein kinase kinase kinase 7 interacting protein 1

## Omim ID

[602615](#)

## Gene Ontology

[Hyperlink](#)

## 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 (MAPK 14/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]

## Other Designations

TAK1-binding protein 1|transforming growth factor beta-activated kinase-binding protein 1

## Pathway

- [Adherens junction](#)
- [MAPK signaling pathway](#)
- [MAPK signaling pathway](#)
- [T cell receptor signaling pathway](#)
- [Toll-like receptor signaling pathway](#)
- [Toll-like receptor signaling pathway](#)
- [Wnt signaling pathway](#)

## Disease

- [Arthritis](#)
- [Arthritis](#)
- [Crohn Disease](#)
- [Crohn Disease](#)
- [Genetic Predisposition to Disease](#)
- [Inflammatory Bowel Diseases](#)
- [Narcolepsy](#)
- [Tobacco Use Disorder](#)