

## **Tak1 Polyclonal Antibody**

Catalog No: YT4536

**Reactivity:** Human; Mouse; Rat

**Applications:** IF;WB;IHC;ELISA

Target: Tak1

Fields: >>MAPK signaling pathway;>>NF-kappa B signaling pathway;>>Autophagy -

animal;>>AMPK signaling pathway;>>Wnt signaling pathway;>>Osteoclast

differentiation;>>Adherens junction;>>Neutrophil extracellular trap

formation;>>Toll-like receptor signaling pathway;>>NOD-like receptor signaling pathway;>>RIG-I-like receptor signaling pathway;>>IL-17 signaling pathway;>>T cell receptor signaling pathway;>>TNF signaling pathway;>>Alcoholic liver disease;>>Pathogenic Escherichia coli infection;>>Shigellosis;>>Salmonella infection;>>Yersinia infection;>>Leishmaniasis;>>Toxoplasmosis;>>Hepatitis

B;>>Measles;>>Herpes simplex virus 1 infection;>>Epstein-Barr virus

infection;>>Human immunodeficiency virus 1 infection;>>Coronavirus disease - COVID-19;>>Lipid and atherosclerosis;>>Fluid shear stress and atherosclerosis

Gene Name: MAP3K7

**Protein Name:** Mitogen-activated protein kinase kinase kinase 7

Human Gene Id: 6885

**Human Swiss Prot** 

No:

Mouse Gene ld: 26409

**Mouse Swiss Prot** 

No:

Q62073

O43318

**Rat Gene Id:** 1.00911e+008

Rat Swiss Prot No: P0C8E4

Immunogen: The antiserum was produced against synthesized peptide derived from human

MAP3K7. AA range:161-210



**Specificity:** Tak1 Polyclonal Antibody detects endogenous levels of Tak1 protein.

**Formulation :** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Source: Polyclonal, Rabbit, IgG

**Dilution:** IF 1:50-200 WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:40000. Not yet

tested in other applications.

**Purification:** The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band: 77kD

**Cell Pathway:** MAPK\_ERK\_Growth;MAPK\_G\_Protein;WNT;WNT-T

CELLAdherens Junction; Toll Like; NOD-like receptor; RIG-I-like

receptor;T\_Cell\_Receptor;

**Background:** 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, Jul 2008],

**Function:** catalytic activity:ATP + a protein = ADP + a

phosphoprotein.,cofactor:Magnesium.,function:Component of a protein kinase

signal transduction cascade. Mediator of TGF-beta signal transduction.

Stimulates NF-kappa-B activation and the p38 MAPK pathway.,PTM:Association with MAP3K7IP1 promotes autophosphorylation and subsequent activation.

Dephosphorylation at Thr-187 by PP2A and PPP6C leads to

inactivation., similarity: Belongs to the protein kinase

superfamily.,similarity:Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. MAP kinase kinase kinase subfamily.,similarity:Contains 1 protein kinase domain.,subunit:Binds both upstream activators and downstream

substrates in multimolecular complexes. Interacts with MAP3K7IP1 and

MAP3K7IP2. Interacts with PPM1L. Interaction with PP2A and PPP6C leads to

its' repressed activity.,

2/3



Subcellular Location:

Cytoplasm . Cell membrane ; Peripheral membrane protein ; Cytoplasmic side . Although the majority of MAP3K7/TAK1 is found in the cytosol, when complexed with TAB1/MAP3K7IP1 and TAB2/MAP3K7IP2, it is also localized at the cell membrane.

**Expression:** 

Isoform 1A is the most abundant in ovary, skeletal muscle, spleen and blood mononuclear cells. Isoform 1B is highly expressed in brain, kidney and small intestine. Isoform 1C is the major form in prostate. Isoform 1D is the less abundant form.

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