# Anti-TAK1 Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

Catalog # R015442

## Product Information

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| Application | WB, IHC-P/IF (Tissue-P), IF (Cell)/ICC, ELISA |
| Reactivity | Human, Mouse, Rat |
| Dilution | WB 1:1,000~1:2,000; IHC-P 1:100~1:200; IF 1:100~1:200 |
| Host | Rabbit |
| Clonality | Monoclonal |
| Clone No. | 20G80N82 |
| Isotype | IgG |
| Label | Unconjugated |
| Immunogen | A synthesized peptide derived from human TAK1 |
| Format | Affinity purified monoclonal antibody supplied in PBS with 0.01% sodium azide and 50% glycerol, pH 7.3. |
| Storage | Shipped on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage. |
| Precautions | Anti-TAK1 Rabbit mAb [20G80N82] is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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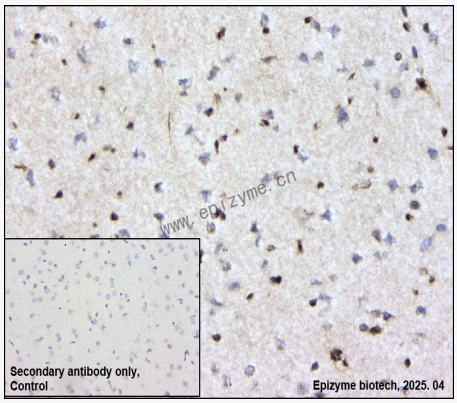
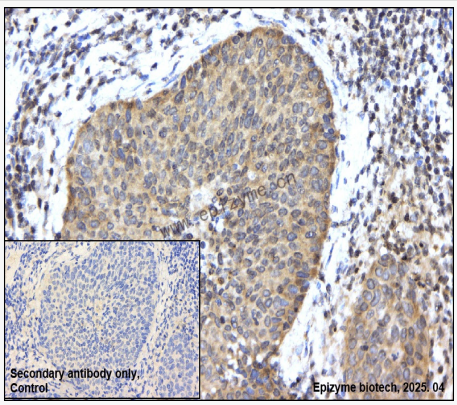
| Synonyms | M3K7_HUMAN; MAP3K 7; Map3k7; MEKK7; Mitogen activated protein kinase kinase kinase 7; Mitogen-activated protein kinase kinase kinase 7; TAK1; TGF beta activated kinase 1; TGF-beta-activated kinase 1; TGF1a; Transforming growth factor beta activated kinase 1; Transforming growth factor-beta-activated kinase 1. |
| Calculated MW | Calculated MW: 67 kDa; Observed MW: 75 kDa |
| Uniprot ID | O43318 |
| Gene ID | 6885 |
| 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] |
| Cellular Location | Cytoplasm. Cell membrane; Peripheral membrane protein; Cytoplasmic side. Note=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. |
| Tissue Location | 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. |

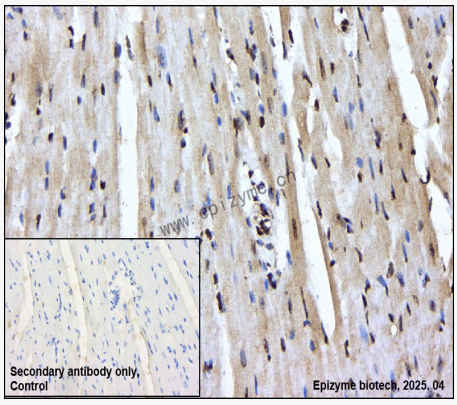
## Validation Images



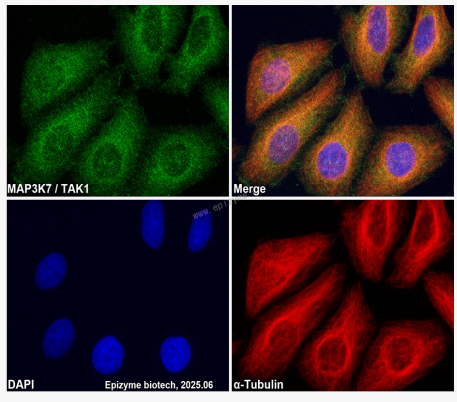

Immunohistochemistry - Anti-TAK1 Rabbit mAb [20G80N82]
Sample: Paraformaldehyde-fixed, paraffin embedded rat brain tissue
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.
Primary antibody: R015442 at 1:200 dilution
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution
DAB was used as the chromogen.
Counter stained with hematoxylin.
Positive/negative staining were presented.
Only the secondary antibody was used as the negative control.



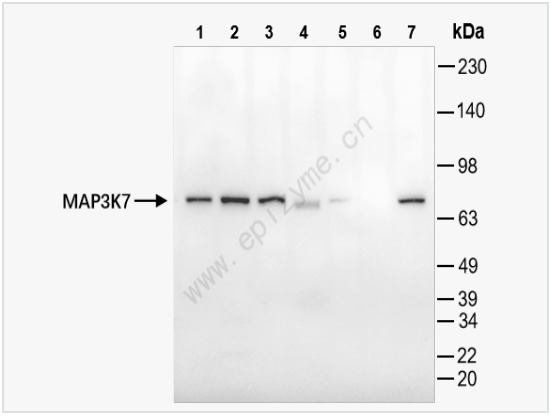

Immunohistochemistry - Anti-TAK1 Rabbit mAb [20G80N82]
Sample: Paraformaldehyde-fixed, paraffin embedded human cervical cancer tissue
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.
Primary antibody: R015442 at 1:200 dilution
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution
DAB was used as the chromogen.
Counter stained with hematoxylin.
Positive/negative staining were presented.
Only the secondary antibody was used as the negative control.




Immunohistochemistry - Anti-TAK1 Rabbit mAb [20G80N82]
Sample: Paraformaldehyde-fixed, paraffin embedded mouse heart tissue
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.
Primary antibody: R015442 at 1:200 dilution
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution
DAB was used as the chromogen.
Counter stained with hematoxylin.
Positive/negative staining were presented.
Only the secondary antibody was used as the negative control.




Immunofluorescence - Anti-TAK1 Rabbit mAb [20G80N82]
Sample: HeLa cells
The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.5% Triton X-100 for 10 minutes and then blocked with 5% BSA in 0.1% PBS-Tween for 0.5 hours.
Primary antibodies: R015442 at 1:100 dilution and α-tubulin Mouse Monoclonal Antibody (Cat. No. LF209) at 1:100 dilution
Secondary antibodies: Goat anti-Rabbit (488) at 1:1,000 dilution (shown in green) and Goat anti-Mouse (555) at 1:1,000 dilution (shown in red)
Nuclei were stained with DAPI (shown in blue).




Western Blot - Anti-TAK1 Rabbit mAb [20G80N82]
All lanes: R015442 at 1:1,000 dilution
Lane 1: T24 (Human bladder cancer epithelial cell) whole cell lysates
Lane 2: U87 (Human malignant glioblastoma epithelial cell) whole cell lysates
Lane 3: SH-SY5Y (Human neuroblastoma epithelial cell) whole cell lysates
Lane 4: C2C12 (Mouse myoblasts epithelial cell) whole cell lysates
Lane 5: Mouse brain whole tissue lysates
Lane 6: Mouse liver whole tissue lysates
Lane 7: PC-12 (Rat adrenal pheochromocytoma epithelial cell) whole cell lysates
Lysates/proteins at 10 µg per lane.
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP Conjugated (Cat. No. LF102) at 1:5,000 dilution
Predicted band size: 67 kDa
Observed band size: 75 kDa
Developed using the ECL technique (Cat. No. SQ201).