



Rabbit Anti-TAK1/MAP3K7 antibody

SL20530R

Product Name:	TAK1/MAP3K7
Chinese Name:	转化生长因子β活化激酶1抗体
Alias:	Mitogen-activated protein kinase kinase kinase 7; Transforming growth factor-beta-activated kinase 1; TGF-beta-activated kinase 1; MAP3K 7; MAPKKK7; Mitogen activated protein kinase kinase kinase 7; TAK1; TGF beta activated kinase 1; TGF1a; Transforming growth factor beta activated kinase 1; M3K7_HUMAN; Map3k7; MEKK7; TGF-beta-activated kinase 1; TGF1a; Transforming growth factor-beta-activated kinase 1.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Pig,Cow,Horse,Rabbit,
Applications:	IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	67kDa
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human TAK1/MAP3K7:
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	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:

Component of a protein kinase signal transduction cascade. Mediator of TRAF6 and TGF-beta signal transduction. Activates IKBKB and MAPK8 in response to TRAF6 signaling. Stimulates NF-kappa-B activation and the p38 MAPK pathway. In osmotic stress signaling, plays a major role in the activation of MAPK8/JNK, but not that of NF-kappa-B.

Subunit:

Binds both upstream activators and downstream substrates in multimolecular complexes. Interacts with TAB1/MAP3K7IP1 and TAB2/MAP3K7IP2. Identified in the TRIKA2 complex composed of MAP3K7, TAB1/MAP3K7IP1 and TAB2/MAP3K7IP2. Interacts with PPM1L. Interaction with PP2A and PPP6C leads to its repressed activity. Interacts with TRAF6 and TAB1/MAP3K7IP1; during IL-1 signaling. Interacts with TAOK1 and TAOK2; interaction with TAOK2 interferes with MAP3K7 interaction with IKKA, thus preventing NF-kappa-B activation. Interacts with WDR34 (via WD domains). Interacts with RBCK1. Interacts with CYLD.

Subcellular 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 Specificity:

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.

Post-translational modifications:

Association with TAB1/MAP3K7IP1 promotes autophosphorylation and subsequent activation. Association with TAB2/MAP3K7IP2, itself associated with free unanchored Lys-63 polyubiquitin chain, promotes autophosphorylation and subsequent activation of MAP3K7. Dephosphorylation at Thr-187 by PP2A and PPP6C leads to inactivation. Ubiquitinated, leading to proteasomal degradation. Requires 'Lys-63'-linked polyubiquitination for autophosphorylation and subsequent activation. 'Lys-63'-linked ubiquitination does not lead to proteasomal degradation. Deubiquitinated by CYLD, a protease that selectively cleaves 'Lys-63'-linked ubiquitin chains.

Similarity:

Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. MAP kinase kinase kinase subfamily.

Contains 1 protein kinase domain.

SWISS:

O43318

Gene ID:

6885

Database links:

[Entrez Gene: 6885](#)Human

[Entrez Gene: 26409](#)Mouse

[Entrez Gene: 313121](#)Rat

[Omim: 602614](#)Human

[SwissProt: O43318](#)Human

[SwissProt: Q62073](#)Mouse

[SwissProt: P0C8E4](#)Rat

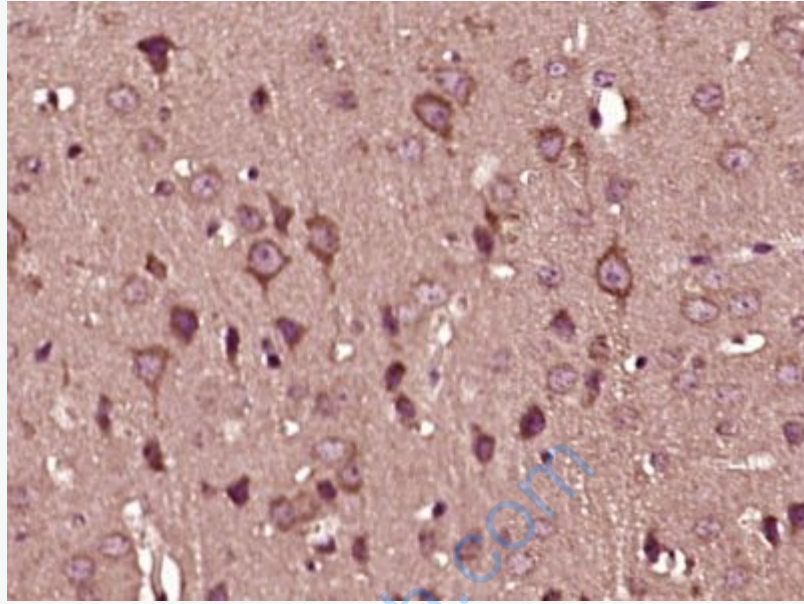
[Unigene: 722892](#)Human

[Unigene: 258589](#)Mouse

[Unigene: 24019](#)Rat

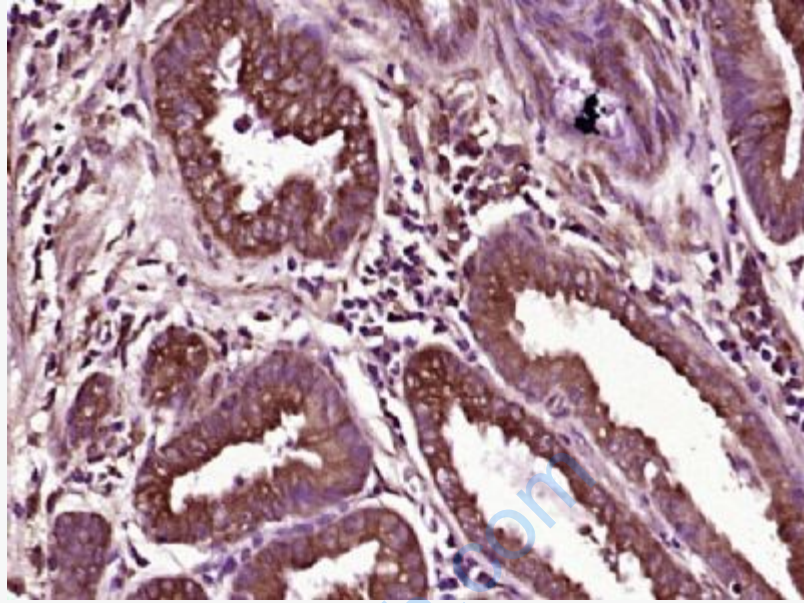
Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.



Picture:

Paraformaldehyde-fixed, paraffin embedded (mouse brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (TAK1) Polyclonal Antibody, Unconjugated (SL20530R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (human gastric carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (TAK1) Polyclonal Antibody, Unconjugated (SL20530R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.