

Rabbit MAP3K7 Polyclonal Antibody | anti-MAP3K7 antibody

Phospho-MAP3K7 (Thr187) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA30953	Rabbit	Human, Mouse, Rat	Western Blot, Immunohistochemistry, Immunofluorescence, Immunocytochemistry, ELISA

PRODUCT SYNONYMS

MAP3K7; Polyclonal Antibody; Phospho-MAP3K7 (Thr187) Antibody; 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; anti-MAP3K7 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-MAP3K7 (Thr187) antibody detects endogenous levels of MAP3K7 only when phosphorylated at Threonine 187
Purity/Purification	From purified rabbit serum by affinity purification via sequential chromatography on phospho-and non-phospho-peptide affinity columns.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	579
Applicable Applications for anti-MAP3K7 antibody	WB (Western Blot), IHC (Immunohistochemistry), IF (Immunofluorescence), ICC (Immunocytochemistry), ELISA
Application Notes	WB: 1:500-1:2000 IHC: 1:50-1:500 IF/ICC: 1:100-1:500
Immunogen	A synthesized peptide derived from human MAP3K7 around the phosphorylation site of Threonine 187
Subcellular Location	Plasma 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.
Predicted Cross Reactivity	Zebrafish, Bovine, Horse, Sheep, Rabbit, Dog, Chicken, Xenopus
Similarity	Zebrafish (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (100%)
Conjugation	Unconjugated
Epitope	Phospho Thr187
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IHC (Immunohistochemistry)
AAA30953 at 1/100 staining rat ovarian tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



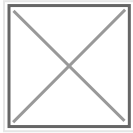
IHC (Immunohistochemistry)
AAA30953 at 1/100 staining rat spleen tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



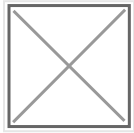
IHC (Immunohistochemistry)
AAA30953 at 1/100 staining rat uterine tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



IHC (Immunohistochemistry)
AAA30953 at 1/100 staining human TB tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



IHC (Immunohistochemistry)
AAA30953 at 1/100 staining human appendiceal tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



IHC (Immunohistochemistry)
AAA30953 at 1/100 staining human pancreas tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL INFORMATION

Related Product Information for anti-MAP3K7 antibody	Description: AK1 a protein kinase of the MLK family. Mediates signal 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, forms a kinase complex including TRAF6, MAP3K7P1/TAB1 and MAP3K7P2/TAB2; this complex is required for the activation of nuclear factor kappa B. Function: Serine/threonine kinase which acts as an essential component of the MAP kinase signal transduction pathway. Plays an important role in the cascades of cellular responses evoked by changes in the environment. Mediates signal transduction of TRAF6, various cytokines including interleukin-1 (IL-1), transforming growth factor-beta (TGFB), TGFB-related factors like BMP2 and BMP4, toll-like receptors (TLR), tumor necrosis factor receptor CD40 and B-cell receptor (BCR). Ceramides are also able to activate MAP3K7/TAK1. Once activated, acts as an upstream activator of the MKK/JNK signal transduction cascade and the p38 MAPK signal transduction cascade through the phosphorylation and activation of several MAP kinase kinases like MAP2K1/MEK1, MAP2K3/MKK3, MAP2K6/MKK6 and MAP2K7/MKK7. These MAP2Ks in turn activate p38 MAPKs, c-jun N-terminal kinases (JNKs) and I-kappa-B kinase complex (IKK). Both p38 MAPK and JNK pathways control the transcription factors activator protein-1 (AP-1), while nuclear factor-kappa B is activated by IKK. MAP3K7 activates also IKBKB and MAPK8/JNK1 in response to TRAF6 signaling and mediates BMP2-induced apoptosis. In osmotic stress signaling, plays a major role in the activation of MAPK8/JNK1, but not that of NF-kappa-B. Promotes TRIM5 capsid-specific restriction activity. Subunit Structure: Can form homodimer (PubMed:27426733). Binds both upstream activators and downstream substrates in multimolecular complexes. Interacts with TAB1/MAP3K7IP1, TAB2/MAP3K7IP2 and TAB3/MAP3K7IP3 (PubMed:10838074, PubMed:11460167, PubMed:12242293, PubMed:14670075, PubMed:16289117, PubMed:19675569, PubMed:8638164). Identified in the TRIKA2 complex composed of MAP3K7/TAK1, TAB1/MAP3K7IP1 and TAB2/MAP3K7IP2 (PubMed:11460167). Interacts with PPM1L and PPM1B/PP2CB (PubMed:11104763). Interaction with PP2A and PPP6C leads to its repressed activity (PubMed:17079228). Interacts with TRAF6 and TAB1/MAP3K7IP1; during IL-1 signaling (PubMed:10094049, PubMed:12242293). Interacts with TAOK1 and TAOK2; interaction with TAOK2 interferes with MAP3K7 interaction with IKKA, thus preventing NF-kappa-B activation (PubMed:16893890). Interacts with WDR34 (via WD domains) (PubMed:19521662). Interacts with CYLD and RBCK1 (PubMed:17449468, PubMed:17548520). Interacts with TGFBR1; induces MAP3K7/TAK1 activation by TRAF6 (PubMed:18758450). Interacts with MAPK8IP1 and SMAD6 (By similarity). Interacts with isoform 1 of VRK2 (PubMed:18286207). Interacts with DAB2; the interaction is induced by TGF-beta stimulation and may mediate TGF-beta stimulated JNK activation (PubMed:15894542). Interacts with TRIM5 (PubMed:21512573). Part of a complex containing ITCH, NDFIP1 and MAP3K7 (By similarity). Interacts with IFIT5; the interaction synergizes the recruitment of IKK to MAP3K7 and enhances IKK phosphorylation (PubMed:26334375). Interacts with PLEKHM1 (via N-and C-terminus) (By similarity). Interacts with TRIM8 (PubMed:22084099). Post-translational Modifications: Association with TAB1/MAP3K7IP1 promotes autophosphorylation at Ser-192 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 Ser-192 by PPM1B/PP2CB and at Thr-187 by PP2A and PPP6C leads to inactivation.'Lys-48'-linked polyubiquitination at Lys-72 is induced by TNFalpha, and leads to proteasomal degradation. Undergoes 'Lys-48'-linked polyubiquitination catalyzed by ITCH (By similarity). 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. Deubiquitinated by Y.enterocolitica YopP. Similarity: Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. MAP kinase kinase kinase subfamily.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4507361
NCBI GeneID	6885
NCBI Accession #	NP_003179.1
NCBI GenBank Nucleotide #	NM_003188.3
UniProt Accession #	O43318; O43317; O43319; Q5TDN2; Q5TDN3; Q5TDT7; Q9NTR3; Q9NZ70; B2RE27; E1P523
Molecular Weight	Observed: 70 kDa Predicted: 68 kDa
NCBI Official Full Name	mitogen-activated protein kinase kinase kinase 7 isoform A

NCBI Official Synonym Full Names	mitogen-activated protein kinase kinase kinase 7
NCBI Official Symbol	MAP3K7
NCBI Official Synonym Symbols	CSCF; FMD2; TAK1; MEKK7; TGF1a
NCBI Protein Information	mitogen-activated protein kinase kinase kinase 7
UniProt Protein Name	Mitogen-activated protein kinase kinase kinase 7
UniProt Gene Name	MAP3K7
UniProt Synonym Gene Names	TGF-beta-activated kinase 1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/map3k7-antibody-western-blot-immunohistochemistry-immunofluorescence-immunocytochemistry-elisa/30953>