

Rabbit MAP2K7 Polyclonal Antibody | anti-MAP2K7 antibody

MAP2K7 Antibody

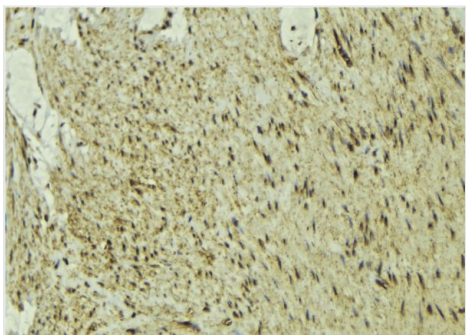
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326664	Rabbit	Human, Mouse, Rat, Monkey	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

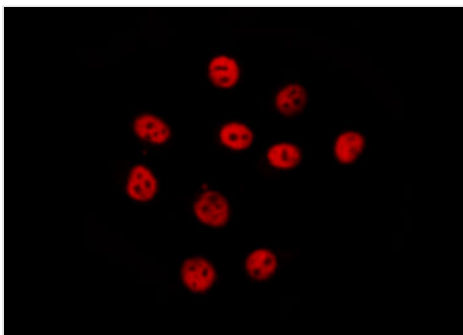
MAP2K7; Polyclonal Antibody; MAP2K7 Antibody; c-Jun N-terminal kinase kinase 2; Dual specificity mitogen activated protein kinase kinase 7; Dual specificity mitogen-activated protein kinase kinase 7; JNK activating kinase 2; JNK kinase 2; JNK-activating kinase 2; JNKK 2; Jnkk-2; Jnkk2; MAP kinase kinase 7; MAPK/ERK kinase 7; MAPKK 7; MAPKK-7; MAPKK7; MEK 7; Mitogen Activated Protein Kinase kinase 7; MKK 7; MKK-7; MKK7; MP2K7_HUMAN; PRKMK 7; PRKMK-7; PRKMK7; SAPK kinase 4; SAPKK-4; SAPKK4; Sek 2; Sek-2; Sek2; SKK4; stress-activated protein kinase kinase 4; anti-MAP2K7 antibody

PRODUCT SPECIFICATIONS

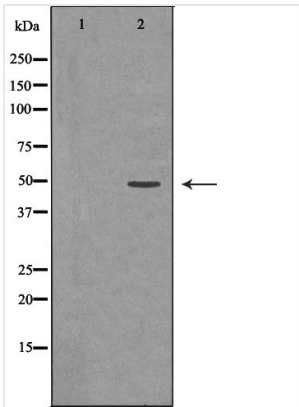
Host	Rabbit
Reactivity	Human, Mouse, Rat, Monkey
Clonality	Polyclonal
Isotype	IgG
Specificity	MAP2K7 antibody detects endogenous levels of total MAP2K7
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	435
Applicable Applications for anti-MAP2K7 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human MAP2K7
Subcellular Location	Nucleus. Cytoplasm.
Tissue Specificity	Ubiquitous; with highest level of expression in skeletal muscle. Isoform 3 is found at low levels in placenta, fetal liver, and skeletal muscle.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IHC (Immunohistochemisry)
AAA326664 at 1/100 staining Mouse muscle tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample 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.



IF (Immunofluorescence)
AAA326664 staining NIH-3T3 cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.



WB (Western Blot)
Western blot analysis of COS7 cell lysate, using MAP2K7 Antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-MAP2K7 antibody	Description: c-Jun NH2-terminal protein kinase (JNK), a distant member of the mitogen-activated protein (MAP) kinase family, regulates gene expression in response to various extracellular stimuli. MKK7, a novel member of the MAP kinase kinase family, was phosphorylated and activated by MEKK1, a MAP kinase kinasekinase in the JNK signaling cascade. MKK7 activity was also stimulated by constitutively active forms of Rac and Cdc42Hs, members of the Rho small GTP-binding protein family (1). endogenous MKK7 was activated by treatment with the growth factor interleukin-3 (but not interleukin-4), or by ligation of CD40, the B-cell antigen receptor, or the receptor for the Fc fragment of immunoglobulin. MKK7 was also activated when cells were exposed to heat, UV irradiation, anisomycin, hyperosmolarity or the pro-inflammatory cytokine tumor necrosis factor-alpha, suggesting that MKK7 is involved in many physiological pathways (2). Function: Dual specificity protein kinase which acts as an essential component of the MAP kinase signal transduction pathway. Essential component of the stress-activated protein kinase/c-Jun N-terminal kinase (SAP/JNK) signaling pathway. With MAP2K4/MKK4, is the one of the only known kinase to directly activate the stress-activated protein kinase/c-Jun N-terminal kinases MAPK8/JNK1, MAPK9/JNK2 and MAPK10/JNK3. MAP2K4/MKK4 and MAP2K7/MKK7 both activate the JNKs by phosphorylation, but they differ in their preference for the phosphorylation site in the Thr-Pro-Tyr motif. MAP2K4/MKK4 shows preference for phosphorylation of the Tyr residue and MAP2K7/MKK7 for the Thr residue. The monophosphorylation of JNKs on the Thr residue is sufficient to increase JNK activity indicating that MAP2K7/MKK7 is important to trigger JNK activity, while the additional phosphorylation of the Tyr residue by MAP2K4/MKK4 ensures optimal JNK activation. Has a specific role in JNK signal transduction pathway activated by proinflammatory cytokines. The MKK/JNK signaling pathway is also involved in mitochondrial death signaling pathway, including the release cytochrome c, leading to apoptosis. Subunit Structure: Interacts with isoform 1 of VRK2. Interacts (via its D domain) with its substrates MAPK8/JNK1, MAPK9/JNK2 and MAPK10/JNK3 (By similarity). Interacts (via its DVD domain) with MAP3Ks activators like MAP3K5/ASK1 and MAP3K1/MEKK1 (By similarity). Interacts with MAPK8IP1/JIP1, MAPK8IP2/JIP2 and MAPK8IP3/JIP3 scaffold proteins. Interacts with RASSF7, the interaction promotes phosphorylation. Post-translational Modifications: Activated by phosphorylation on Ser-271 and Thr-275 by MAP kinase kinase kinases (MAP3Ks). Similarity: The DVD domain (residues 377-400) contains a conserved docking site and is found in the mammalian MAP kinase kinases (MAP2Ks). The DVD sites bind to their specific upstream MAP kinase kinase kinases (MAP3Ks) and are essential for activation.The D domain (residues 37-57) contains a conserved docking site and is required for the binding to MAPK substrates. Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. MAP kinase kinase subfamily.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	662033893
NCBI GeneID	5609
NCBI Accession #	NP_001284484.1
NCBI GenBank Nucleotide #	NM_001297555.1
UniProt Accession #	O14733; O14648; O14816; O60452; O60453; Q1PG43; Q8IY10; B2R9S5; D6W659
Molecular Weight	Observed: 47 kDa Predicted: 48 kDa
NCBI Official Full Name	dual specificity mitogen-activated protein kinase kinase 7 isoform 1
NCBI Official Synonym Full Names	mitogen-activated protein kinase kinase 7
NCBI Official Symbol	MAP2K7
NCBI Official Synonym Symbols	MEK; MKK7; JNKK2; MEK 7; MAPKK7; PRKMK7; SAPKK4; SAPKK-4
NCBI Protein Information	dual specificity mitogen-activated protein kinase kinase 7
UniProt Protein Name	Dual specificity mitogen-activated protein kinase kinase 7
UniProt Gene Name	MAP2K7
UniProt Synonym Gene Names	JNKK2; MEK7; MKK7; PRKMK7; SKK4; MAP kinase kinase 7; MAPKK 7; MEK 7; SAPK kinase 4; SAPKK-4; SAPKK4; JNK kinase 2; JNKK 2

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.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/polyclonal/map2k7-antibody-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/326664>