

Rabbit MKK4 Polyclonal Antibody | anti-MKK4 antibody

Phospho-MKK4 (Ser257/Thr261) Antibody

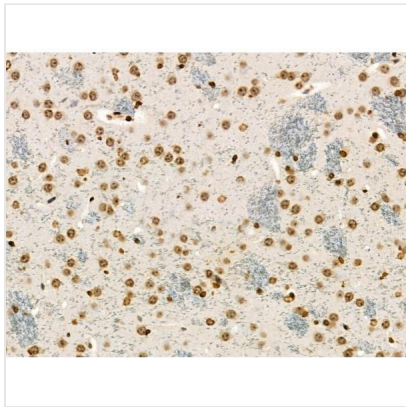
CATALOG # AAA329342	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS ELISA, Immunohistochemistry
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PRODUCT SYNONYMS

MKK4; Polyclonal Antibody; Phospho-MKK4 (Ser257/Thr261) Antibody; c Jun N terminal kinase kinase 1; C-JUN N-terminal kinase kinase 1; Dual specificity mitogen activated protein kinase kinase 4; Dual specificity mitogen-activated protein kinase kinase 4; JNK Activated Kinase 1; JNK activating kinase 1; JNK-activating kinase 1; JNKK; JNKK1; MAP kinase kinase 4; Map2k4; MAPK ERK kinase 4; MAPK/ERK kinase 4; MAPKK 4; MAPKK4; MEK 4; MEK4; Mitogen activated protein kinase kinase 4; MKK 4; MP2K4_HUMAN; PRKMK4; SAPK ERK kinase 1; SAPK/ERK kinase 1; SAPKK 1; SAPKK1; SEK1; SERK1; SKK1; Stress activated protein kinase kinase 1; anti-MKK4 antibody

PRODUCT SPECIFICATIONS

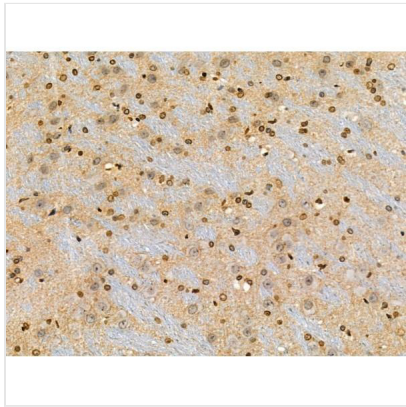
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-MKK4 (Ser257/Thr261) Antibody detects endogenous levels of MKK4 only when phosphorylated at Ser257/Thr261. Tissue Specificity: Abundant expression is seen in the skeletal muscle. It is also widely expressed in other tissues.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-MKK4 antibody	ELISA (Peptide ELISA), IHC (Immunohistochemistry)
Immunogen	A synthesized peptide derived from human MKK4 around the phosphorylation site of Ser257/Thr261.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Activated by phosphorylation on Ser-257 and Thr-261 by MAP kinase kinase kinases (MAP3Ks).
Subunit Structure	Interacts with SPAG9 (By similarity). Interacts (via its D domain) with its substrates MAPK8/JNK1, MAPK9/JNK2, MAPK10/JNK3, MAPK11 and MAPK14. Interacts (via its DVD domain) with MAP3Ks activators like MAP3K1/MEKK1 and MAP3K11/MLK3. Interacts with ARRB1, ARRB2 and MAPK8IP3/JIP3.
Similarity	The DVD domain (residues 364-387) 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 34-52) 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.
Subcellular Location	Cytoplasm. Nucleus.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IHC (Immunohistochemistry)
At 1/100 staining Mouse brain 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 primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
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 primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
Staining Rat brain 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 primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
At 1/100 staining Rat skin 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 primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-MKK4 antibody	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 MAP2K7/MKK7, 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 shows preference for phosphorylation of the Tyr residue and MAP2K7/MKK7 for the Thr residue. The phosphorylation of the Thr residue by MAP2K7/MKK7 seems to be the prerequisite for JNK activation at least in response to proinflammatory cytokines, while other stimuli activate both MAP2K4/MKK4 and MAP2K7/MKK7 which synergistically phosphorylate JNKs. MAP2K4 is required for maintaining peripheral lymphoid homeostasis. The MKK/JNK signaling pathway is also involved in mitochondrial death signaling pathway, including the release cytochrome c, leading to apoptosis. Whereas MAP2K7/MKK7 exclusively activates JNKs, MAP2K4/MKK4 additionally activates the p38 MAPKs MAPK11, MAPK12, MAPK13 and MAPK14.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4506889
NCBI GeneID	6416
NCBI Accession #	NP_003001.1

NCBI GenBank Nucleotide #	NM_003010.2
UniProt Accession #	P45985 ; Q5U0B8 ; Q6FHX4 ; Q6P9H2 ; Q6PIE6 ; B2R7N7 ; B3KYB2 ; D3DTS5
Molecular Weight	44,288 Da
NCBI Official Full Name	dual specificity mitogen-activated protein kinase kinase 4
NCBI Official Synonym Full Names	mitogen-activated protein kinase kinase 4
NCBI Official Symbol	MAP2K4
NCBI Official Synonym Symbols	JNKK; MEK4; MKK4; SEK1; JNKK1; SERK1; MAPKK4; PRKMK4; SAPKK1; SAPKK-1
NCBI Protein Information	dual specificity mitogen-activated protein kinase kinase 4; MEK 4; MAPKK 4; SAPK kinase 1; MAPK/ERK kinase 4; SAPK/ERK kinase 1; MAP kinase kinase 4; JNK-activated kinase 1; JNK activating kinase 1; JNK-activating kinase 1; c-Jun N-terminal kinase kinase
UniProt Protein Name	Dual specificity mitogen-activated protein kinase kinase 4
UniProt Gene Name	MAP2K4
UniProt Synonym Gene Names	JNKK1; MEK4; MKK4; PRKMK4; SEK1; SERK1; SKK1; MAP kinase kinase 4; MAPKK 4; MEK 4; SEK1; SAPK kinase 1; SAPKK-1; SAPKK1; JNKK
UniProt Entry Name	MP2K4_HUMAN

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/mkk4-antibody-peptide-elisa-immunohistochemistry-elisa/329342>