

Rabbit MAPK10 Polyclonal Antibody | anti-MAPK10 antibody

MAPK10 Antibody

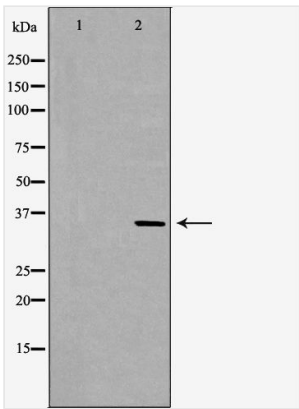
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326595	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

MAPK10; Polyclonal Antibody; MAPK10 Antibody; c Jun kinase 3; c-Jun N-terminal kinase 3; cJun N terminal kinase 3; FLJ12099; FLJ33785; JNK3 alpha protein kinase; JNK3; JNK3A; MAP kinase 10; MAP kinase; MAP kinase p49 3F12; MAPK 10; Mapk10; MGC50974; mitogen activated protein kinase 10; Mitogen-activated protein kinase 10; MK10_HUMAN; p493F12; p54bSAPK; PRKM10; protein kinase mitogen activated 10; SAPK1b; Stress activated protein kinase 1b; stress activated protein kinase beta; Stress activated protein kinase JNK3; Stress-activated protein kinase JNK3; anti-MAPK10 antibody

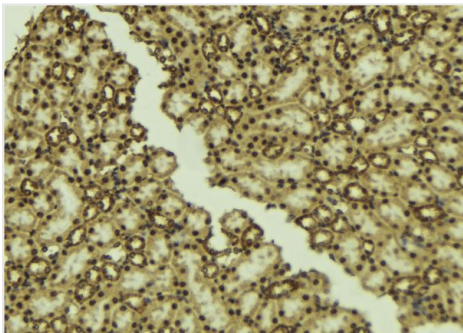
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	MAPK10 antibody detects endogenous levels of total MAPK10
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	464
Applicable Applications for anti-MAPK10 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human MAPK10
Subcellular Location	Cytoplasm.
Tissue Specificity	Specific to a subset of neurons in the nervous system. Present in the hippocampus and areas, cerebellum, striatum, brain stem, and weakly in the spinal cord. Very weak expression in testis and kidney.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



WB (Western Blot)

Western blot analysis of Mouse brain lysate, using MAPK10 Antibody. The lane on the left is treated with the antigen-specific peptide.



IHC (Immunohistochemistry)

AAA326595 at 1/100 staining Mouse kidney 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.

ADDITIONAL INFORMATION

Related Product Information for anti-MAPK10 antibody

Description: The stress-activated protein kinase/Jun-amino-terminal kinase SAPK/JNK is potently and preferentially activated by a variety of environmental stresses including UV and gamma radiation, ceramides, inflammatory cytokines, and in some instances, growth factors and GPCR agonists (1-6). As with the other MAPKs, the core signaling unit is composed of a MAPKKK, typically MEKK1-MEKK4, or by one of the mixed lineage kinases (MLKs), which phosphorylate and activate MKK4/7. Upon activation, MKKs phosphorylate and activate the SAPK/JNK kinase (2). Stress signals are delivered to this cascade by small GTPases of the Rho family (Rac, Rho, cdc42) (3). Both Rac1 and cdc42 mediate the stimulation of MEKKs and MLKs (3). Alternatively, MKK4/7 can be activated in a GTPase-independent mechanism via stimulation of a germinal center kinase (GCK) family member (4). There are three SAPK/JNK genes each of which undergoes alternative splicing, resulting in numerous isoforms (3). SAPK/JNK, when active as a dimer, can translocate to the nucleus and regulate transcription through its effects on c-Jun, ATF-2, and other transcription factors (3, 5).

Function: Serine/threonine-protein kinase involved in various processes such as neuronal proliferation, differentiation, migration and programmed cell death. Extracellular stimuli such as proinflammatory cytokines or physical stress stimulate the stress-activated protein kinase/c-Jun N-terminal kinase (SAP/JNK) signaling pathway. In this cascade, two dual specificity kinases MAP2K4/MKK4 and MAP2K7/MKK7 phosphorylate and activate MAPK10/JNK3. In turn, MAPK10/JNK3 phosphorylates a number of transcription factors, primarily components of AP-1 such as JUN and ATF2 and thus regulates AP-1 transcriptional activity. Plays regulatory roles in the signaling pathways during neuronal apoptosis. Phosphorylates the neuronal microtubule regulator STMN2. Acts in the regulation of the amyloid-beta precursor protein/APP signaling during neuronal differentiation by phosphorylating APP. Participates also in neurite growth in spiral ganglion neurons. Phosphorylates the CLOCK-ARNTL/BMAL1 heterodimer and plays a role in the photic regulation of the circadian clock (PubMed:22441692).

Subunit Structure: Interacts with MAPKBP1 (By similarity). Binds to at least four scaffolding proteins, MAPK8IP1/JIP-1, MAPK8IP2/JIP-2, MAPK8IP3/JIP-3/JSAP1 and SPAG9/MAPK8IP4/JIP-4. These proteins also bind other components of the JNK signaling pathway. Interacts with HDAC9. Interacts with ARRB2; the interaction enhances MAPK10 activation by MAP3K5. Interacts with SARM1 (By similarity).

Post-translational Modifications: Dually phosphorylated on Thr-221 and Tyr-223 by MAP2K4 and MAP2K7, which activates the enzyme. MAP2K7 shows a strong preference for Thr-221 while MAP2K4 phosphorylates Tyr-223 preferentially. Weakly autophosphorylated on threonine and tyrosine residues in vitro. Palmitoylation regulates subcellular location and axonal development.

Similarity: The TXY motif contains the threonine and tyrosine residues whose phosphorylation activates the MAP kinases. Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. MAP kinase subfamily.

NCBI AND UNIPROT INFORMATION

NCBI GI #	969536252
NCBI GeneID	5602
NCBI Accession #	NP_001304996.1
NCBI GenBank Nucleotide #	NM_001318067.1

UniProt Accession #	P53779 ; Q15707 ; Q49AP1 ; A6NFS3 ; A6NG28 ; B3KQ94
Molecular Weight	Observed: 36 kDa Predicted: 53 kDa
NCBI Official Full Name	mitogen-activated protein kinase 10 isoform 5
NCBI Official Synonym Full Names	mitogen-activated protein kinase 10
NCBI Official Symbol	MAPK10
NCBI Official Synonym Symbols	JNK3; JNK3A; PRKM10; SAPK1b; p493F12; p54bSAPK
NCBI Protein Information	mitogen-activated protein kinase 10
UniProt Protein Name	Mitogen-activated protein kinase 10
UniProt Gene Name	MAPK10
UniProt Synonym Gene Names	JNK3; JNK3A; PRKM10; SAPK1B; MAP kinase 10; MAPK 10; SAPK1b

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/mapk10-antibody-immunohistochemistry-western-blot-elisa/326595>