

# Mouse Monoclonal Antibody to MAPK10

Purified Mouse Monoclonal Antibody

Catalog # AO2372a

## Product Information

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<b>Application</b>	WB, E
<b>Primary Accession</b>	<a href="#">P53779</a>
<b>Reactivity</b>	Human, Rat
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Clone Names</b>	2B10H12
<b>Isotype</b>	Mouse IgG2a
<b>Calculated MW</b>	52585
<b>Description</b>	The protein encoded by this gene is a member of the MAP kinase family. MAP kinases act as integration points for multiple biochemical signals and are involved in a wide variety of cellular processes, such as proliferation, differentiation, transcription regulation and development. This kinase is specifically expressed in a subset of neurons in the nervous system and is activated by threonine and tyrosine phosphorylation. Targeted deletion of this gene in mice suggests that it may have a role in stress-induced neuronal apoptosis. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. A recent study provided evidence for translational readthrough in this gene and expression of an additional C-terminally extended isoform via the use of an alternative in-frame translation termination codon.;
<b>Immunogen</b>	Purified recombinant fragment of human MAPK10 (AA: 180-329) expressed in E. Coli.
<b>Formulation</b>	Purified antibody in PBS with 0.05% sodium azide
<b>Application Note</b>	ELISA: 1/10000; WB: 1/500 - 1/2000;

## Additional Information

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<b>Gene ID</b>	5602
<b>Other Names</b>	JNK3; JNK3A; PRKM10; SAPK1b; p493F12; p54bSAPK
<b>Dilution</b>	WB~~1:1000 E~~N/A
<b>Storage</b>	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
<b>Precautions</b>	Mouse Monoclonal Antibody to MAPK10 is for research use only and not for use in diagnostic or therapeutic procedures.

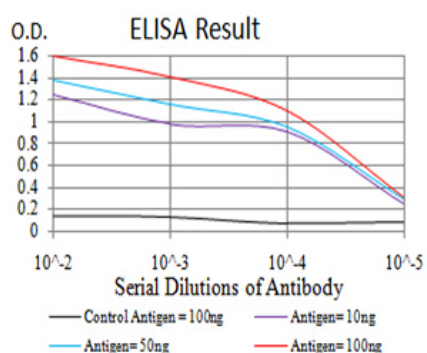
## Protein Information

<b>Name</b>	MAPK10
<b>Synonyms</b>	JNK3, JNK3A, PRKM10, SAPK1B
<b>Function</b>	Serine/threonine-protein kinase involved in various processes such as neuronal proliferation, differentiation, migration and programmed cell death. Extracellular stimuli such as pro-inflammatory 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. Also participates in neurite growth in spiral ganglion neurons. Phosphorylates the CLOCK-BMAL1 heterodimer and plays a role in the photic regulation of the circadian clock (PubMed: <a href="#">22441692</a> ). Phosphorylates JUND and this phosphorylation is inhibited in the presence of MEN1 (PubMed: <a href="#">22327296</a> ).
<b>Cellular Location</b>	Cytoplasm. Membrane; Lipid-anchor. Nucleus Mitochondrion. Note=Palmitoylation regulates MAPK10 trafficking to cytoskeleton. Recruited to the mitochondria in the presence of SARM1 (By similarity).
<b>Tissue Location</b>	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

## References

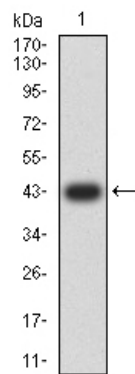
1.J Diabetes Res. 2014;2014:814854. ; 2.Pathol Int. 2011 Jan;61(1):52-4.;

## Images

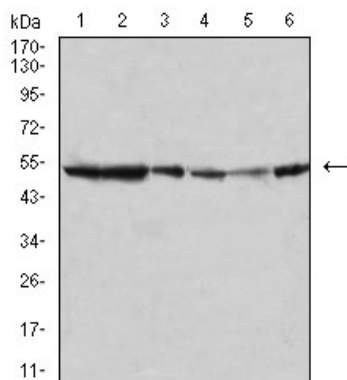
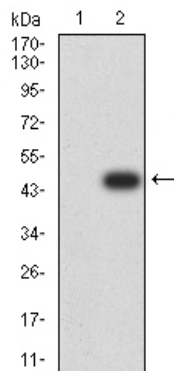


Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)

Western blot analysis using MAPK10 mAb against human MAPK10 (AA: 180-329) recombinant protein. (Expected MW is 43.1 kDa)



Western blot analysis using MAPK10 mAb against HEK293 (1) and MAPK10 (AA: 180-329)-hIgGfc transfected HEK293 (2) cell lysate.



Western blot analysis using MAPK10 mouse mAb against HEK293 (1), Hela (2), SK-N-SH (3), MCF-7 (4), Jurkat (5), and C6 (6) cell lysate.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.