

**Mouse Mapk10 Antibody (N-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP14264a****Specification**

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**Mouse Mapk10 Antibody (N-term) Blocking Peptide - Product Information**Primary Accession [Q61831](#)**Mouse Mapk10 Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 26414**Other Names**

Mitogen-activated protein kinase 10, MAP kinase 10, MAPK 10, MAP kinase p49 3F12, Stress-activated protein kinase JNK3, c-Jun N-terminal kinase 3, Mapk10, Jnk3, Prkm10, Serk2

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**Mouse Mapk10 Antibody (N-term) Blocking Peptide - Protein Information****Name** Mapk10**Synonyms** Jnk3, Prkm10, Serk2**Function**

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. Participates also 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: <http://www.uniprot.org/citations/22441692> target="\_blank">22441692</a>). Phosphorylates JUND and this phosphorylation is inhibited in the presence of MEN1 (By similarity).

**Cellular Location**

Cytoplasm. Membrane; Lipid-anchor. Nucleus Mitochondrion. Note=Palmitoylation regulates MAPK10 trafficking to cytoskeleton (By similarity). Recruited to the mitochondria in the presence of SARM1.

**Tissue Location**

Brain (at protein level). Expressed specifically in neurons of the hippocampus, cortex, cerebellum, brainstem, and spinal cord. Seems to be also found in testis, and very weakly in the heart

**Mouse Mapk10 Antibody (N-term) Blocking Peptide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

**Mouse Mapk10 Antibody (N-term) Blocking Peptide - Images****Mouse Mapk10 Antibody (N-term) Blocking Peptide - Background**

Mapk10 responds to activation by environmental stress and pro-inflammatory cytokines by phosphorylating a number of transcription factors, primarily components of AP-1 such as c-Jun and ATF2 and thus regulates AP-1 transcriptional activity. Required for stress-induced neuronal apoptosis and the pathogenesis of glutamate excitotoxicity.