

KD-Validated Anti-MAPK10 Rabbit Monoclonal Antibody
Rabbit monoclonal antibody
Catalog # AGI1599**Specification****KD-Validated Anti-MAPK10 Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC, ICC
Primary Accession	P53779
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 53 kDa , observed , 53 kDa KDa
Gene Name	MAPK10
Aliases	Mitogen-Activated Protein Kinase 10; JNK3; P54bSAPK; P493F12; PRKM10; Stress-Activated Protein Kinase JNK3; Stress-Activated Protein Kinase 1b; C-Jun N-Terminal Kinase 3; MAP Kinase P49 3F12; MAP Kinase 10; EC 2.7.11.24; SAPK1b; JNK3A; Stress Activated Protein Kinase Beta; JNK3 Alpha Protein Kinase; EC 2.7.11; MAPK 10; SAPK1B
Immunogen	A synthesized peptide derived from human JNK3

KD-Validated Anti-MAPK10 Rabbit Monoclonal Antibody - Additional Information

Gene ID	5602
Other Names	
Mitogen-activated protein kinase 10, MAP kinase 10, MAPK 10, 2.7.11.24, MAP kinase p49 3F12, Stress-activated protein kinase 1b, SAPK1b, Stress-activated protein kinase JNK3, c-Jun N-terminal kinase 3, MAPK10, JNK3, JNK3A, PRKM10, SAPK1B	

KD-Validated Anti-MAPK10 Rabbit Monoclonal Antibody - Protein Information**Name** MAPK10**Synonyms** JNK3, JNK3A, PRKM10, SAPK1B**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. 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:22441692). Phosphorylates JUND and this phosphorylation is inhibited in the presence of MEN1 (PubMed:22327296).

Cellular Location

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

Tissue Location

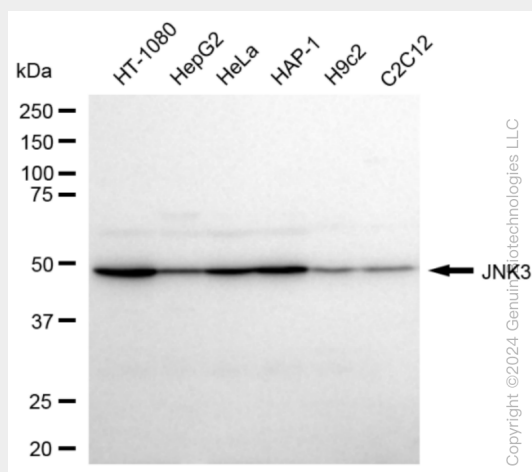
Specific to a subset of neurons in the nervous system. Present in the hippocampus and areas, cerebellum, striatum, brain stem, and weakly in the spinal cord. Very weak expression in testis and kidney

KD-Validated Anti-MAPK10 Rabbit Monoclonal Antibody - Protocols

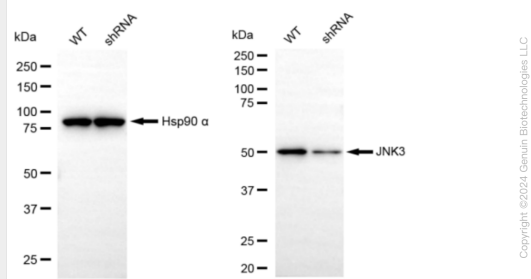
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

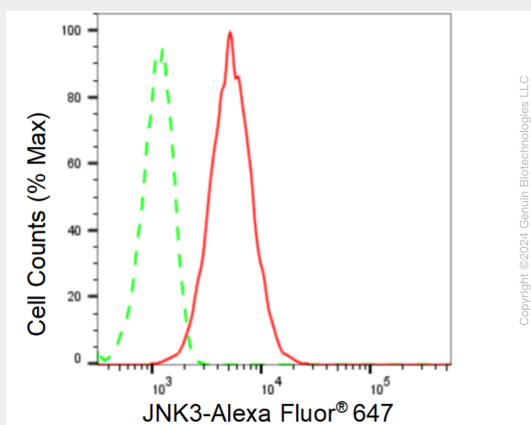
KD-Validated Anti-MAPK10 Rabbit Monoclonal Antibody - Images



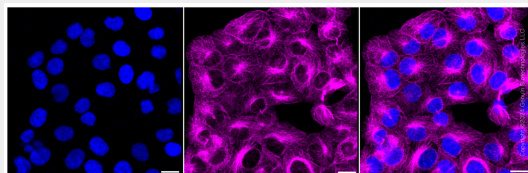
Western blotting analysis using anti-JNK3 antibody (Cat#AGI1599). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-JNK3 antibody (Cat#AGI1599, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-JNK3 antibody (Cat#AGI1599). JNK3 expression in wild type (WT) and JNK3 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-JNK3 antibody (Cat#AGI1599, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of JNK3 expression in HT-1080 cells using JNK3 antibody (Cat#AGI1599, 1:2,000). Green, isotype control; red, JNK3.



Immunocytochemical staining of HT-1080 cells with anti-JNK3 antibody (Cat#AGI1599, 1:1,000). Nuclei were stained blue with DAPI; JNK3 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.