JNK3 Mouse mAb

CatalogNo: YM0390

Key Features

Host Species
- Mouse

Reactivity
- Human,Mouse

Applications
- WB,IF,ELISA

MW
- 53kD (Calculated)

Recommended Dilution Ratios

WB 1:500-1:2000
IF 1:200-1:1000
ELISA 1:10000
Not yet tested in other applications.

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Basic Information

Clonality	Monoclonal

Immunogen Information

Immunogen	Purified recombinant fragment of human JNK3 (aa28-233) expressed in E. Coli.
Specificity	JNK3 Monoclonal Antibody detects endogenous levels of JNK3 protein.

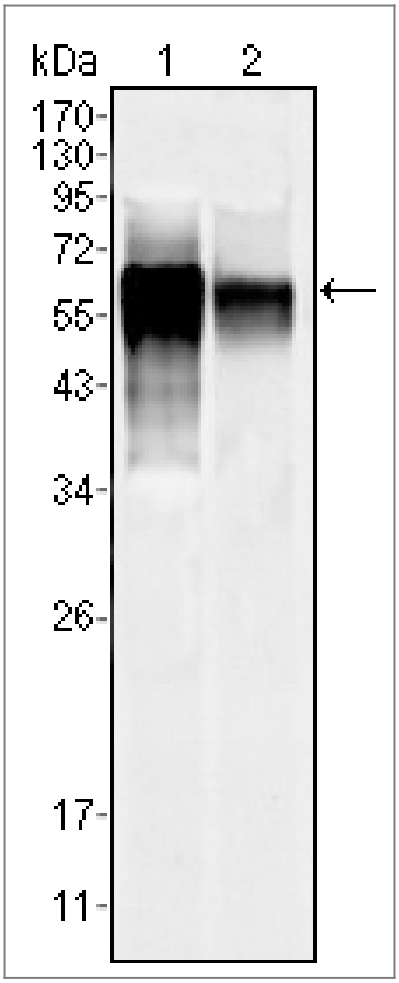
Target Information

Gene name	MAPK10
Protein Name	Mitogen-activated protein kinase 10

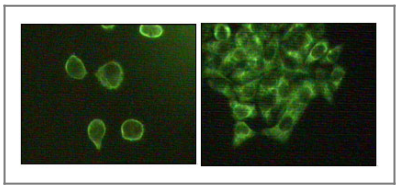
Organism	Gene ID	UniProt ID
Human	5602;	P53779;
Mouse		Q61831;

Cellular Localization	Cytoplasm . Membrane ; Lipid-anchor . Nucleus . Mitochondrion . Palmitoylation regulates MAPK10 trafficking to cytoskeleton. Recruited to the mitochondria in the presence of SARM1 (By similarity). .
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.
Function	Alternative products:A similar low level of binding to substrates is observed for isoform alpha-1 and isoform alpha-2. However, there is no correlation between binding and phosphorylation, which is achieved about at the same efficiency by all isoforms,Catalytic activity:ATP + a protein = ADP + a phosphoprotein.,Caution:The sequence shown here is derived from an Ensembl automatic analysis pipeline and should be considered as preliminary data.,cofactor:Magnesium.,Disease:A chromosomal rearrangement involving MAPK10 is a cause of epileptic encephalopathy Lennox-Gastaut type [MIM:606369]. Translocation t(Y;4)(q11.2;q21) which causes MAPK10 truncation. Epileptic encephalopathies of the Lennox-Gastaut group are childhood epileptic disorders characterized by severe psychomotor delay and seizures.,Domain:The TXY motif contains the threonine and tyrosine residues whose phosphorylation activates the MAP kinases.,enzyme regulation:Activated by threonine and tyrosine phosphorylation by two dual specificity kinases, MAP2K4 and MAP2K7. MAP2K7 phosphorylates MAPK10 on Thr-221 causing a conformational change and a large increase in Vmax. MAP2K4 then phosphorylates Tyr-223 resulting in a further increase in Vmax. Inhibited by dual specificity phosphatases, such as DUSP1. Inhibited by HDAC9.,Function: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.,mass spectrometry: PubMed:10715136,PTM:Dually phosphorylated on Thr-221 and Tyr-223, which activates the enzyme. Weakly autophosphorylated on threonine and tyrosine residues in vitro.,similarity:Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. MAP kinase subfamily.,similarity:Contains 1 protein kinase domain.,subunit: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.,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.,

Validation Data



Western Blot analysis using JNK3 Monoclonal Antibody against NIH/3T3 (1) and SKN-SH (2) cell lysate.



Immunofluorescence staining of methanol-fixed A431 (left) and Hela (right) cells showing cytoplasmic and membrane localization using JNK3 Monoclonal Antibody.

Contact information

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Please scan the QR code to access additional product information:
JNK3 Mouse mAb