

JNK2 protein

Catalog No :	YD0059
Reactivity :	Human
Applications :	WB;SDS-PAGE
Gene Name :	MAPK9
Protein Name :	JNK2 protein
Sequence :	Amino acid: 227-424, with his-MBP tag.
Human Gene Id :	5601
Human Swiss Prot No :	P45984
Mouse Swiss Prot No :	Q9WTU6
Formulation :	Liquid in PBS
Source :	E.coli
Dilution :	WB 1:500-2000
Concentration :	SDS-PAGE >90%
Storage Stability :	-20 °C/6 month, -80 °C for long storage
Background :	catalytic activity:ATP + a protein = ADP + a phosphoprotein.,cofactor:Magnesium.,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 either of two dual specificity kinases, MAP2K4 and MAP2K7. Inhibited by dual specificity phosphatases, such as DUSP1.,function:JNK2 isoforms display different binding patterns: alpha-1 and alpha-2 preferentially bind to c-Jun, whereas beta-1 and beta-2 bind to ATF2. However, there is no correlation between binding and phosphorylation, which is achieved at about the same efficiency by all isoforms. JUNB is not a substrate for JNK2 alpha-2, and JUND binds only weakly to it.,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. In T-cells, JNK1 and JNK2 are required for polarized differentiation of T-helper cells into Th1 cells.,PTM:Dually phosphorylated on Thr-183 and Tyr-185, which activates the enzyme. Autophosphorylated 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: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 NFATC4.,

Function :

MAPKKK cascade, protein amino acid phosphorylation, phosphorus metabolic process, phosphate metabolic process,induction of apoptosis, intracellular signaling cascade, protein kinase cascade, JNK cascade, induction of apoptosis by extracellular signals, response to inorganic substance, response to metal ion, positive regulation of macromolecule metabolic process, positive regulation of gene expression, regulation of foam cell differentiation, positive regulation of foam cell differentiation, regulation of cell death, positive regulation of cell death, induction of programmed cell death,phosphorylation, stress-activated protein kinase signaling pathway, induction of programmed cell death in response to chemical stimulus, induction of apoptosis in response to chemical stimulus, cellular response to stress, regulation of apoptosis, positive regulation of apoptosis, regulation of programmed c

Subcellular Location :

Cytoplasm . Nucleus . Colocalizes with POU5F1 in the nucleus. .

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