

JNK3 Protein, Human

Cat. No.:	HY-P701790
Synonyms:	MAPK10; Mitogen-activated protein kinase 10; MAP kinase 10; MAPK 10; MAP kinase p49 3F12; Stress-activated protein kinase 1b; SAPK1b; Stress-activated protein kinase JNK3; c-Jun N-terminal kinase 3
Species:	Human
Source:	E. coli
Accession:	P53779 (M1-S423)
Gene ID:	5602
Molecular Weight:	

PROPERTIES

Appearance	Solution.
Formulation	Supplied as a 0.22 µm filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	Please use rapid thawing with running water to thaw the protein.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	JNK3, a serine/threonine-protein kinase, is a key player in diverse neuronal processes, including proliferation, differentiation, migration, and programmed cell death. Activation of the stress-activated protein kinase/c-Jun N-terminal kinase (SAP/JNK) signaling pathway by extracellular stimuli, such as pro-inflammatory cytokines or physical stress, involves the phosphorylation and activation of JNK3 by dual specificity kinases MAP2K4/MKK4 and MAP2K7/MKK7. Within this cascade, JNK3 phosphorylates critical transcription factors, particularly components of AP-1 like JUN and ATF2, thereby regulating AP-1 transcriptional activity. JNK3 plays pivotal roles in neuronal apoptosis by modulating signaling pathways, and it phosphorylates the neuronal microtubule regulator STMN2. Additionally, in the regulation of amyloid-beta precursor protein/APP signaling during neuronal differentiation, JNK3 phosphorylates APP. Furthermore, JNK3 contributes to neurite growth in spiral ganglion neurons and phosphorylates the CLOCK-BMAL1 heterodimer, influencing the photic regulation of the circadian clock. Notably, JNK3 phosphorylates JUND, and this phosphorylation is inhibited in the presence of MEN1.
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Caution: Product has not been fully validated for medical applications. For research use only.

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