



# Recombinant Human Mitogen-activated protein kinase 9 (MAPK9)

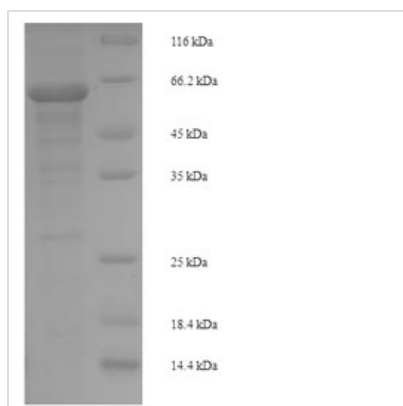
<b>Product Code</b>	CSB-EP013471HU
<b>Relevance</b>	<p>Serine/threonine-protein kinase involved in various processes such as cell proliferation, differentiation, migration, transformation and programmed cell death. Extracellular domain stimuli such as proinflammatory cytokines or physical stress stimulate 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 MAPK9/JNK2. In turn, MAPK9/JNK2 phosphorylates a number of transcription factors, primarily components of AP-1 such as JUN and ATF2 and thus regulates AP-1 transcriptional activity. In response to oxidative or ribotoxic stresses, inhibits rRNA synthesis by phosphorylating and inactivating the RNA polymerase 1-specific transcription initiation factor RRN3. Promotes stressed cell apoptosis by phosphorylating key regulatory factors including TP53 and YAP1. In T-cells, MAPK8 and MAPK9 are required for polarized differentiation of T-helper cells into Th1 cells. Upon T-cell receptor (TCR) stimulation, is activated by CARMA1, BCL10, MAP2K7 and MAP3K7/TAK1 to regulate JUN protein levels. Plays an important role in the osmotic stress-induced epithelial tight-junctions disruption. When activated, promotes beta-catenin/CTNNB1 degradation and inhibits the canonical Wnt signaling pathway. Participates also in neurite growth in spiral ganglion neurons. Phosphorylates the CLOCK-ARNTL/BMAL1 heterodimer and plays a role in the regulation of the circadian clock .</p>
<b>Abbreviation</b>	Recombinant Human MAPK9 protein
<b>Storage</b>	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
<b>Uniprot No.</b>	P45984
<b>Alias</b>	JNK-55Stress-activated protein kinase 1a ;SAPK1a;Stress-activated protein kinase JNK2c-Jun N-terminal kinase 2
<b>Product Type</b>	Recombinant Protein
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Purity</b>	Greater than 90% as determined by SDS-PAGE.
<b>Sequence</b>	<p>MSDSKCDSQFYVSQVADSTFTVLKRYQQKPIGSGAQQGIVCAAFDTVLGINVA  VKKLSRPFQNQTHAKRAYRELVLLKCVNHKNIISLLNVFTPQKTLEEFQDVYLV  MELMDANLCQVIHMELDHERMSYLLYQMLCGIKHLHSAGIIHRDLKPSNIVVKS  DCTLKILDFGLARTACTNFMMPYVVTRYRRAPEVILGMGYKENVDIWSVGC  MGELVKGCVIFQGTDHIDQWNKVIEQLGTPSAEFMKKLQPTVRNYVENRPKYP  GIKFEELFPDWIFPSESERDKIKTSQARDLLSKMLVIDPDKRISVDEALRHPYITV  WYDPAEAEAPPPQIYDAQLEEREHAIEEWKELIYKEVMDWEERSKNGVVKDQ</p>



PSDAAVSSNATPSQSSSINDISSMSTEQTLASDTDSSLDASTGPLEGCR

<b>Research Area</b>	Signal Transduction
<b>Source</b>	E.coli
<b>Target Names</b>	MAPK9
<b>Expression Region</b>	1-424aa
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	N-terminal 6xHis-SUMO-tagged
<b>Mol. Weight</b>	64.1kDa
<b>Protein Length</b>	Full Length

#### Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

<b>Reconstitution</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.
<b>Shelf Life</b>	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.