

Datasheet for ABIN7554572
JNK2 Protein (AA 1-424) (His tag)



[Go to Product page](#)

Overview

Quantity:	1 mg
Target:	JNK2 (MAPK9)
Protein Characteristics:	AA 1-424
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This JNK2 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat MAPK9 Protein expressed in mammalian cells.
Sequence:	<p>MSDSKCDSQF YSVQVADSTF TVLKRYQQLK PIGSGAQGIV CAAFDTVLGI NVAVKKLSRP FQNQTHAKRA YRELVLLKCV NHKNIISLLN VFTPQKTL EE FQDVYLV MEL MDANLCQVIH MELDHERMSY LLYQMLCGIK HLHSAGIIHR DLKPSNIVVK SDCTLKILDF GLARTACTNF MMTPYVVTRY YRAPEVILGM GYKENVDIWS VGCIMGELVK GCVIFQGTDH IDQWNKVIEQ LGTPSAEFMK KLQPTVRNYV ENRPKYPGIK FEELFPDWIF PSESERDKIK TSQARDLLSK MLVIDPDKRI SVDEALRHPY ITVWYDPAEA EAPPPQIYDA QLEEREHAIE EWKELIYKEV MDWEERSKNG VVKDQPSDAA VSSNATPSQS SSINDISSMS TEQTLASDTD SSLDASTGPL EGCR</p> <p>Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.</p>
Characteristics:	Key Benefits:

Product Details

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

If you are not interested in a full length protein, please contact us for individual protein fragments.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

Purity:	> 90 % as determined by Bis-Tris Page, Western Blot
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Grade:	custom-made
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Target Details

Target:	JNK2 (MAPK9)
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Alternative Name:	MAPK9 (MAPK9 Products)
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Background:	Mitogen-activated protein kinase 9 (MAP kinase 9) (MAPK 9) (EC 2.7.11.24) (JNK-55) (Stress-activated protein kinase 1a) (SAPK1a) (Stress-activated protein kinase JNK2) (c-Jun N-terminal kinase 2),FUNCTION: Serine/threonine-protein kinase involved in various processes such as cell proliferation, differentiation, migration, transformation 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 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,
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Target Details

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-BMAL1 heterodimer and plays a role in the regulation of the circadian clock (PubMed:22441692). Phosphorylates POU5F1, which results in the inhibition of POU5F1's transcriptional activity and enhances its proteasomal degradation (By similarity). {ECO:0000250|UniProtKB:Q9WTU6, ECO:0000269|PubMed:22441692}., FUNCTION: MAPK9 isoforms display different binding patterns: alpha-1 and alpha-2 preferentially bind to 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.

Molecular Weight: 48.1 kDa

UniProt: [P45984](#)

Pathways: [MAPK Signaling](#), [WNT Signaling](#), [TLR Signaling](#), [Fc-epsilon Receptor Signaling Pathway](#), [Activation of Innate immune Response](#), [Cellular Response to Molecule of Bacterial Origin](#), [Positive Regulation of Endopeptidase Activity](#), [Hepatitis C](#), [Toll-Like Receptors Cascades](#), [BCR Signaling](#), [S100 Proteins](#)

Application Details

Application Notes: In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: 12 months