

# Datasheet for ABIN7565208 JNK2 Protein (AA 1-423) (His tag)



#### Overview

Quantity:	1 mg
Target:	JNK2 (MAPK9)
Protein Characteristics:	AA 1-423
Origin:	Mouse
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 mammalien cells.
Sequence:	MSDSKSDGQF YSVQVADSTF TVLKRYQQLK PIGSGAQGIV CAAFDTVLGI NVAVKKLSRP
	FQNQTHAKRA YRELVLLKCV NHKNIISLLN VFTPQKTLEE FQDVYLVMEL MDANLCQVIH
	MELDHERMSY LLYQMLCGIK HLHSAGIIHR DLKPSNIVVK SDCTLKILDF GLARTACTNF
	MMTPYVVTRY YRAPEVILGM GYKENVDIWS VGCIMAEMVL HKVLFPGRDY IDQWNKVIEQ
	LGTPSAEFMK KLQPTVRNYV ENRPKYPGIK FEELFPDWIF PSESERDKIK TSQARDLLSK
	MLVIDPDKRI SVDEALRHPY ITVWYDPAEA EAPPPQIYDA QLEEREHAIE EWKELIYKEV
	MDWEERSKNG VKDQPSDAAV SSKATPSQSS SINDISSMST EHTLASDTDS SLDASTGPLE GCR
	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.
Characteristics:	Key Benefits:

- · Made to order protein from design to production by highly experienced protein experts.
- · Protein expressed in mammalien 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

Grade:

custom-made

#### **Target Details**

Target:

JNK2 (MAPK9)

Alternative Name:

Mapk9 (MAPK9 Products)

Background:

Mitogen-activated protein kinase 9 (MAP kinase 9) (MAPK 9) (EC 2.7.11.24) (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, 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		
(PubMed:29153991). {ECO:0000269 PubMed:10811224, ECO:0000269 PubMed:11562351,		
ECO:0000269 PubMed:16973441, ECO:0000269 PubMed:21554942,		
ECO:0000269 PubMed:22441692, ECO:0000269 PubMed:29153991,		
ECO:0000269 PubMed:9806643}.		

Molecular Weight:	48.2 kDa
UniProt:	Q9WTU6
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