Datasheet for ABIN7197035

JNK2 Protein (His tag)

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Overview

Quantity:	50 µg
Target:	JNK2 (MAPK9)
Origin:	Human
Source:	Baculovirus infected Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This JNK2 protein is labelled with His tag.

Product Details

Purpose:	Recombinant Human JNK2/MAPK9 Protein (His Tag)
Sequence:	Met 1-Arg 424
Characteristics:	A DNA sequence encoding the full length of human MAPK9 (NP_002743.3) (Met 1-Arg 424) was fused with a polyhistidine tag at the C-terminus.
Purity:	> 90 % as determined by reducing SDS-PAGE.
Endotoxin Level:	< 1.0 EU per µg as determined by the LAL method.

Target Details

Target:	JNK2 (MAPK9)
Alternative Name:	JNK2/MAPK9 (MAPK9 Products)
Background:	Background: Mitogen-activated protein kinase 9 (MAPK9), also well known as c-Jun N-terminal kinase (JNK2), is a member of MAP kinase subfamily belonging to the protein kinase superfamily. MAPK9 responds to activation by environmental stress and pro-inflammatory

Target Details

	cytokines by phosphorylating a number of transcription factors, such as c-Jun and ATF2. The crystal structure of human JNK2 complexed with an indazole inhibitor by applying a high-throughput protein engineering and surface-site mutagenesis approach. A novel conformation of the activation loop is observed, which is not compatible with its phosphorylation by upstream kinases. This activation inhibitory conformation of JNK2 is stabilized by the MAP kinase insert that interacts with the activation loop in an induced-fit manner. It suggest that the MAP kinase insert of JNK2 plays a role in the regulation of JNK2 activation, possibly by interacting with intracellular binding partners. JNK2 deficiency leads to reduced c-Jun degradation, thereby augmenting c-Jun levels and cellular proliferation, and suggests that JNK2 is a negative regulator of cellular proliferation in multiple cell types. JNK2 prevents replicative stress by coordinating cell cycle progression and DNA damage repair mechanisms. JNK2 blocks the ubiquitination of tumor suppressor p53, and thus increases the stability of p53 in nonstressed cells. JNK2 negatively regulates antigen-specific CD8+ T cell expansion and effector function, and thus selectively blocking JNK2 in CD8+ T cells may potentially enhance anti-tumor immune response. Lack of JNK2 expression was associated with higher tumor aneuploidy and reduced DNA damage response. Additionally,the JNK2 protein could be a novel therapeutic target in dry eye disease, and may provide a novel target for prevention of vascular disease and atherosclerosis. Synonym: JNK-55,JNK2,JNK2A,JNK2ALPHA,JNK2B,JNK2BETA,p54a,p54aSAPK,PRKM9,SAPK,SAPK1a
Molecular Weight:	49.5 kDa
NCBI Accession:	NP_002743
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

Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Please refer to the printed manual for detailed information.

Handling

Buffer:	Lyophilized from sterile 50 mM Tris, 100 mM NaCl, pH 8.0, 10 % glycerol, 0.5 mM EDTA, 0.5 mM PMSF
Storage:	4 °C,-20 °C,-80 °C
Storage Comment:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

