MAPK8 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	MAPK8, Polyclonal Antibody
Full Product Name	MAPK8 Antibody, Biotin conjugated
Product Gene Name	anti-MAPK8 antibody
Product Synonym Names	Mitogen-activated protein kinase 8; JNK-46; Stress-activated protein kinase 1c; SAPK1c; Stress-activated protein kinase JNK1; c-Jun N-terminal kinase 1; MAPK8; JNK1; PRKM8; SAPK1; SAPK1C
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Liquid
Purity/Purification	>95%, Protein G purified
Preparation and Storage	Shipped at 4 degree C. Upon delivery aliquot and store at -20 degree C or -80 degree C. Avoid repeated freeze.
Matching Pairs	Unconjugated Antibody: MAPK8 (MBS7049687) Biotin Conjugated Antibody: MAPK8 (MBS7049690)
Molecular Weight	35,333 Da
OMIM	L26318 mRNA
3D Structure	ModBase 3D Structure for P45983
Immunogen	Recombinant human Mitogen-activated protein kinase 8 protein (5-300AA)
Preservative	0.03% Proclin 300
Constituents	50% Glycerol, 0.01M PBS, PH 7.4
Conjugation	Biotin
Santa Cruz Alternative	Potential replacement for Santa Cruz Biotechnology antibody catalog# sc-46006 / sc-46009 / sc-46007 / sc-46008 / sc-571 / sc-474
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-MAPK8 antibody	ELISA (EIA)

Related Product Information for anti-MAPK8 antibody	Serine/threonine-protein kinase involved in various processes such as cell proliferation, differentiation, migration, transformation and programmed cell death. Extracellular 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 MAPK8/JNK1. In turn, MAPK8/JNK1 phosphorylates a number of transcription factors, primarily components of AP-1 such as JUN, JDP2 and ATF2 and thus regulates AP-1 transcriptional activity. Phosphorylates the replication licensing factor CDT1, inhibiting the interaction between CDT1 and the histone H4 acetylase HBO1 to replication origins. Loss of this interaction abrogates the acetylation required for replication initiation. Promotes stressed cell apoptosis by phosphorylating key regulatory factors including p53/TP53 and Yes-associates protein YAP1. In T-cells, MAPK8 and MAPK9 are required for polarized differentiation of T-helper cells into Th1 cells. Contributes to the survival of erythroid cells by phosphorylating the antagonist of cell death BAD upon EPO stimulation. Mediates starvation-induced BCL2 phosphorylation, BCL2 dissociation from BECN1, and thus activation of autophagy. Phosphorylates STMN2 and hence regulates microtubule dynamics, controlling neurite elongation in cortical neurons. In the developing brain, through its cytoplasmic activity on STMN2, negatively regulates the rate of exit from multipolar stage and of radial migration from the ventricular zone. Phosphorylates several other substrates including heat shock factor protein 4 (HSF4), the deacetylase SIRT1, ELK1, or the E3 ligase ITCH. Phosphorylates the CLOCK-ARNTL/BMAL1 heterodimer and plays a role in the regulation of the circadian clock (PubMed: 22441692).
Other Notes	Small volumes of anti-MAPK8 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for MAPK8 purchase	MBS7049690 is an antibody targeting MAPK8. Also known as MAPK8 Antibody, Biotin conjugated. Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for MAPK8. It may not necessarily be applicable to this product.

NCBI GI #	513788279
NCBI GeneID	5599
NCBI Accession #	NP_001265476.1
UniProt Primary Accession #	P45983
UniProt Secondary Accession #	Q15709; Q15712; Q15713; Q308M2; B5BTZ5; B7ZLV4; D3DX88; D3DX92
UniProt Related Accession #	P45983
GenBank Nucleotide #	NM_001278547.1
NCBI Official Full Name	mitogen-activated protein kinase 8 isoform beta2
NCBI Official Synonym Full Names	mitogen-activated protein kinase 8
NCBI Official Symbol	MAPK8
NCBI Official Synonym Symbols	JNK; JNK1; PRKM8; SAPK1; JNK-46; JNK1A2; SAPK1c; JNK21B1/2
UniProt Protein Name	Mitogen-activated protein kinase 8
UniProt Synonym Protein Names	JNK-46; Stress-activated protein kinase 1c; SAPK1c; Stress-activated protein kinase JNK1; c-Jun N-terminal kinase 1
Protein Family	JNK1/MAPK8-associated membrane protein
UniProt Gene Name	MAPK8
UniProt Synonym Gene Names	JNK1; PRKM8; SAPK1; SAPK1C; MAP kinase 8; MAPK 8; SAPK1c
UniProt Entry Name	MK08_HUMAN
NCBI Protein Information	mitogen-activated protein kinase 8

NCBI Summary for MAPK8	The protein encoded by this gene is a member of the MAP kinase family. MAP kinases act as an integration point for multiple biochemical signals, and are involved in a wide variety of cellular processes such as proliferation, differentiation, transcription regulation and development. This kinase is activated by various cell stimuli, and targets specific transcription factors, and thus mediates immediate-early gene expression in response to cell stimuli. The activation of this kinase by tumor-necrosis factor alpha (TNF-alpha) is found to be required for TNF-alpha induced apoptosis. This kinase is also involved in UV radiation induced apoptosis, which is thought to be related to cytochrom c-mediated cell death pathway. Studies of the mouse counterpart of this gene suggested that this kinase play a key role in T cell proliferation, apoptosis and differentiation. Several alternatively spliced transcript variants encoding distinct isoforms have been reported. [provided by RefSeq, Apr 2016]
UniProt Comments for MAPK8	JNK1: a protein kinase of the MAPK family that is potently activated by a variety of environmental stresses, including UV and gamma radiation, ceramides, pro-inflammatory cytokines and, in some instances, by growth factors and GPCR agonists. Substrates include a number of transcription factors, primarily components of AP-1 such as c-Jun and ATF2, thus regulating AP-1 transcriptional activity. In T- cells, JNK1 and JNK2 are required for polarized differentiation of T-helper cells into Th1 cells. Binds to at least four scaffolding proteins, JIP-1, -2, -3 and -4. Activity increased in obesity. Inhibition or mouse knockout increases insulin sensitivity. Part of NFB pathway involved in inflammation and cancer, and signals downstream of Ras, though possibly as an apoptotic negative regulator of growth. Four alternatively-spliced isoforms have been described. Protein type: CMGC group; EC 2.7.11.24; JNK subfamily; Kinase, protein; MAPK family; MAPK/JNK subfamily; Protein kinase, CMGC; Protein kinase, Ser/Thr (non-receptor) Chromosomal Location of Human Ortholog: 10q11.22 Cellular Component: cytosol; nucleoplasm; nucleus Molecular Function: enzyme binding; histone deacetylase binding; histone deacetylase regulator activity; JUN kinase activity; kinase activity; protein binding; protein serine/threonine kinase activity Biological Process: JNK cascade; JUN phosphorylation; negative regulation of apoptosis; negative regulation of protein binding; peptidyl-serine phosphorylation; peptidyl-threonine phosphorylation; positive regulation of apoptosis; positive regulation of cyclase activity; positive regulation of protein metabolic process; protein amino acid phosphorylation; regulation of circadian rhythm; regulation of macroautophagy; regulation of protein localization; regulation of transcription factor activity; response to stress; response to UV
Research Articles on MAPK8	**1.** Data suggest that ubiquitin D (UBD) provides a negative feedback on cytokine-induced activation of the endoplasmic reticulum to nucleus signaling 1 (IRE1alpha)/c-Jun N-terminal kinase (JNK) pro-apoptotic pathway in cytokine-exposed beta cells.
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