

Anti-JNK1 Antibody
Catalog # ABO11197**Specification**

Anti-JNK1 Antibody - Product Information

| | |
|-------------------|--------------------------|
| Application | WB |
| Primary Accession | P45983 |
| Host | Rabbit |
| Reactivity | Human, Mouse, Rat |
| Clonality | Polyclonal |
| Format | Lyophilized |

Description

Rabbit IgG polyclonal antibody for Mitogen-activated protein kinase 8(MAPK8) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-JNK1 Antibody - Additional Information

Gene ID 5599

Other Names

Mitogen-activated protein kinase 8, MAP kinase 8, MAPK 8, 2.7.11.24, JNK-46, Stress-activated protein kinase 1c, SAPK1c, Stress-activated protein kinase JNK1, c-Jun N-terminal kinase 1, MAPK8, JNK1, PRKM8, SAPK1, SAPK1C

Calculated MW

48296 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization

Cytoplasm . Nucleus .

Protein Name

Mitogen-activated protein kinase 8

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg Na₃N.

Immunogen

A synthetic peptide corresponding to a sequence at the N-terminus of human JNK1(1-15aa MSRSKRDNFYSVEI), identical to the related rat and mouse sequences.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. MAP kinase subfamily.

Anti-JNK1 Antibody - Protein Information**Name** MAPK8**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 (PubMed: [28943315](http://www.uniprot.org/citations/28943315)). 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 (PubMed: [18307971](http://www.uniprot.org/citations/18307971)). Phosphorylates the replication licensing factor CDT1, inhibiting the interaction between CDT1 and the histone H4 acetylase HBO1 to replication origins (PubMed: [21856198](http://www.uniprot.org/citations/21856198)). Loss of this interaction abrogates the acetylation required for replication initiation (PubMed: [21856198](http://www.uniprot.org/citations/21856198)). Promotes stressed cell apoptosis by phosphorylating key regulatory factors including p53/TP53 and Yes-associated protein YAP1 (PubMed: [21364637](http://www.uniprot.org/citations/21364637)). 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 (PubMed: [21095239](http://www.uniprot.org/citations/21095239)). Mediates starvation-induced BCL2 phosphorylation, BCL2 dissociation from BECN1, and thus activation of autophagy (PubMed: [18570871](http://www.uniprot.org/citations/18570871)). Phosphorylates STMN2 and hence regulates microtubule dynamics, controlling neurite elongation in cortical neurons (By similarity). 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 (By similarity). Phosphorylates several other substrates including heat shock factor protein 4 (HSF4), the deacetylase SIRT1, ELK1, or the E3 ligase ITCH (PubMed: [16581800](http://www.uniprot.org/citations/16581800), PubMed: [17296730](http://www.uniprot.org/citations/17296730), PubMed: [20027304](http://www.uniprot.org/citations/20027304)). Phosphorylates the CLOCK-BMAL1 heterodimer and plays a role in the regulation of the circadian clock (PubMed: [22441692](http://www.uniprot.org/citations/22441692)). Phosphorylates the heat shock transcription factor HSF1, suppressing HSF1-induced transcriptional activity (PubMed: [10747973](http://www.uniprot.org/citations/10747973)). Phosphorylates POU5F1, which results in the inhibition of POU5F1's transcriptional activity and enhances its proteasomal degradation (By similarity). Phosphorylates JUND and this phosphorylation is inhibited in the presence of MEN1 (PubMed: [10747973](http://www.uniprot.org/citations/10747973)).

[22327296](http://www.uniprot.org/citations/22327296)). In neurons, phosphorylates SYT4 which captures neuronal dense core vesicles at synapses (By similarity). Phosphorylates EIF4ENIF1/4-ET in response to oxidative stress, promoting P-body assembly (PubMed:[22966201](http://www.uniprot.org/citations/22966201)). Phosphorylates SIRT6 in response to oxidative stress, stimulating its mono-ADP-ribosyltransferase activity (PubMed:[27568560](http://www.uniprot.org/citations/27568560)). Phosphorylates NLRP3, promoting assembly of the NLRP3 inflammasome (PubMed:[28943315](http://www.uniprot.org/citations/28943315)). Phosphorylates ALKBH5 in response to reactive oxygen species (ROS), promoting ALKBH5 sumoylation and inactivation (PubMed:[34048572](http://www.uniprot.org/citations/34048572)).

Cellular Location

Cytoplasm. Nucleus. Synapse {ECO:0000250|UniProtKB:P49185}. Note=In the cortical neurons, predominantly cytoplasmic and associated with the Golgi apparatus and endosomal fraction. Increased neuronal activity increases phosphorylated form at synapses (By similarity). Colocalizes with POU5F1 in the nucleus. {ECO:0000250|UniProtKB:P49185, ECO:0000250|UniProtKB:Q91Y86}

Anti-JNK1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-JNK1 Antibody - Images



Anti-JNK1 antibody, ABO11197, Western blottingWB: HT1080 Cell Lysate

Anti-JNK1 Antibody - Background

MAPK8(Mitogen-activated protein kinase 8), also known as JNK1, PRKM8, and SAPK1, is an enzyme

that in humans is encoded by the MAPK8 gene. The protein encoded by this gene is a member of the MAP kinase and JNK family. The International Radiation Hybrid Mapping Consortium mapped the MAPK8 gene to chromosome 10. 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. This kinase is also involved in UV radiation-induced apoptosis, which is thought to be related to the cytochrome c-mediated cell death pathway.