

**JNK2 Antibody**  
Rabbit mAb  
Catalog # AP90626

## Specification

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### JNK2 Antibody - Product Information

Application	WB, IHC, FC, ICC, IP
Primary Accession	<a href="#">P45984</a>
Reactivity	Rat
Clonality	Monoclonal
<b>Other Names</b>	
MAPK9; JNK-55; JNK2; JNK2A; JNK2B; JNK2BETA; PRKM9; SAPK; p54a; p54aSAPK;	
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	48139 Da

### JNK2 Antibody - Additional Information

Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human JNK2
Description	The stress-activated protein kinase/Jun-amino-terminal kinase SAPK/JNK is potently and preferentially activated by a variety of environmental stresses including UV and gamma radiation, ceramides, inflammatory cytokines, and in some instances, by growth factors and GPCR agonists. As with the other MAPKs, the core signaling unit is composed of a MAPKKK, typically MEKK1-MEKK4, or by one of the mixed lineage kinases (MLKs), which phosphorylate and activate MKK4/7.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

### JNK2 Antibody - Protein Information

**Name** MAPK9

**Synonyms** JNK2, PRKM9, SAPK1A

#### Function

Serine/threonine-protein kinase involved in various processes such as cell proliferation, differentiation, migration, transformation and programmed cell death (PubMed:<a

href="http://www.uniprot.org/citations/10376527" target="\_blank">10376527</a>, PubMed:<a href="http://www.uniprot.org/citations/15805466" target="\_blank">15805466</a>, PubMed:<a href="http://www.uniprot.org/citations/17525747" target="\_blank">17525747</a>, PubMed:<a href="http://www.uniprot.org/citations/19675674" target="\_blank">19675674</a>, PubMed:<a href="http://www.uniprot.org/citations/20595622" target="\_blank">20595622</a>, PubMed:<a href="http://www.uniprot.org/citations/21364637" target="\_blank">21364637</a>, PubMed:<a href="http://www.uniprot.org/citations/22441692" target="\_blank">22441692</a>, PubMed:<a href="http://www.uniprot.org/citations/34048572" target="\_blank">34048572</a>). 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 (PubMed:<a href="http://www.uniprot.org/citations/10376527" target="\_blank">10376527</a>, PubMed:<a href="http://www.uniprot.org/citations/15805466" target="\_blank">15805466</a>, PubMed:<a href="http://www.uniprot.org/citations/17525747" target="\_blank">17525747</a>, PubMed:<a href="http://www.uniprot.org/citations/19675674" target="\_blank">19675674</a>, PubMed:<a href="http://www.uniprot.org/citations/20595622" target="\_blank">20595622</a>, PubMed:<a href="http://www.uniprot.org/citations/21364637" target="\_blank">21364637</a>, PubMed:<a href="http://www.uniprot.org/citations/22441692" target="\_blank">22441692</a>, PubMed:<a href="http://www.uniprot.org/citations/34048572" target="\_blank">34048572</a>). 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 (PubMed:<a href="http://www.uniprot.org/citations/10376527" target="\_blank">10376527</a>). In response to oxidative or ribotoxic stresses, inhibits rRNA synthesis by phosphorylating and inactivating the RNA polymerase 1-specific transcription initiation factor RRN3 (PubMed:<a href="http://www.uniprot.org/citations/15805466" target="\_blank">15805466</a>). Promotes stressed cell apoptosis by phosphorylating key regulatory factors including TP53 and YAP1 (PubMed:<a href="http://www.uniprot.org/citations/17525747" target="\_blank">17525747</a>, PubMed:<a href="http://www.uniprot.org/citations/21364637" target="\_blank">21364637</a>). In T-cells, MAPK8 and MAPK9 are required for polarized differentiation of T-helper cells into Th1 cells (PubMed:<a href="http://www.uniprot.org/citations/19290929" target="\_blank">19290929</a>). Upon T-cell receptor (TCR) stimulation, is activated by CARMA1, BCL10, MAP2K7 and MAP3K7/TAK1 to regulate JUN protein levels (PubMed:<a href="http://www.uniprot.org/citations/19290929" target="\_blank">19290929</a>). Plays an important role in the osmotic stress-induced epithelial tight-junctions disruption (PubMed:<a href="http://www.uniprot.org/citations/20595622" target="\_blank">20595622</a>). When activated, promotes beta-catenin/CTNNB1 degradation and inhibits the canonical Wnt signaling pathway (PubMed:<a href="http://www.uniprot.org/citations/19675674" target="\_blank">19675674</a>). Participates also in neurite growth in spiral ganglion neurons (By similarity). Phosphorylates the CLOCK-BMAL1 heterodimer and plays a role in the regulation of the circadian clock (PubMed:<a href="http://www.uniprot.org/citations/22441692" target="\_blank">22441692</a>). Phosphorylates POU5F1, which results in the inhibition of POU5F1's transcriptional activity and enhances its proteasomal degradation (By similarity). Phosphorylates ALKBH5 in response to reactive oxygen species (ROS), promoting ALKBH5 sumoylation and inactivation (PubMed:<a href="http://www.uniprot.org/citations/34048572" target="\_blank">34048572</a>).

### Cellular Location

Cytoplasm. Nucleus. Note=Colocalizes with POU5F1 in the nucleus.  
{ECO:0000250|UniProtKB:Q9WTU6}

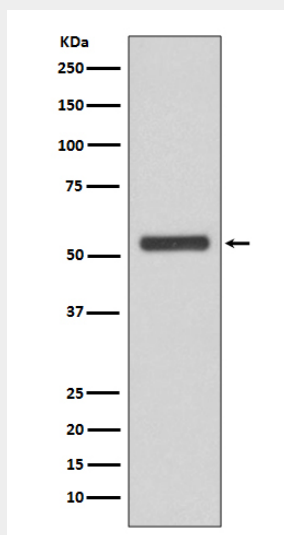
### JNK2 Antibody - Protocols

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](#)

### JNK2 Antibody - Images



Western blot analysis of JNK2 expression in HeLa cell lysate.