

**Phospho-JNK/SAPK Antibody**  
**Rabbit Polyclonal Antibody**  
**Catalog # ABV10435****Specification**

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**Phospho-JNK/SAPK Antibody - Product Information**

|                   |                              |
|-------------------|------------------------------|
| Application       | WB                           |
| Primary Accession | <a href="#">P45984</a>       |
| Other Accession   | <a href="#">NP_001128516</a> |
| Reactivity        | Human, Mouse, Rat            |
| Host              | Rabbit                       |
| Clonality         | Polyclonal                   |
| Isotype           | Rabbit IgG                   |
| Calculated MW     | 48139                        |

**Phospho-JNK/SAPK Antibody - Additional Information****Gene ID 5601**

|                     |  |
|---------------------|--|
| Application & Usage | Western blotting (1-2 µg/ml), immunoprecipitation (10-20 µg/ml), immunocytochemistry (10-20 µg/ml), and Immunohistochemistry (20-30 µg/ml). However, the optimal conditions should be determined individually. The antibody detects the p46 and p54 JNK/SAPK dually phosphorylated at Thr183 and Tyr185. |
|---------------------|--|

**Other Names**

c-Jun kinase, JNK , JNK 1 , JAK1A , MAPK8 , MAPK 8 , SAPK 1 , SAPK1 , Kinase JNK1 , Stress activated protein kinase

**Target/Specificity**

Phospho-JNK/SAPK

**Antibody Form**

Liquid

**Appearance**

Colorless liquid

**Formulation**

100 µg (0.5 mg/ml) affinity purified rabbit anti-phospho-JNK/SAPK polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 50% glycerol, 1% BSA, 0.02% sodium azide.

**Handling**

The antibody solution should be gently mixed before use.

**Reconstitution & Storage**

-20 °C

## Background Descriptions

### Precautions

Phospho-JNK/SAPK Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Phospho-JNK/SAPK 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. 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:<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).

### Cellular Location

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

## Phospho-JNK/SAPK 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](#)

## Phospho-JNK/SAPK Antibody - Images

## Phospho-JNK/SAPK Antibody - Background

The JNK pathway is activated by largely distinct stimuli including inflammatory cytokines (such as TNF- $\alpha$  and IL-1), UV light, inhibitors of protein synthesis and osmotic stress. Activated MEKK1 phosphorylates SEK1 (also known as MKK4), which in turn activates SAPK (also known as JNK). JNK binds tightly to the N-terminal region of c-Jun and ATF-2, and phosphorylates c-Jun at Ser63 and Ser73 and ATF-2 at Thr69 and Thr71.