

**Phospho-JNK/SAPK(Thr183/Tyr185)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP3907a****Specification**

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**Phospho-JNK/SAPK(Thr183/Tyr185) - Product Information**

Application	WB,E
Primary Accession	<a href="#">P45984</a>
Other Accession	<a href="#">P79996</a> , <a href="#">Q9WTU6</a> , <a href="#">P49186</a>
Reactivity	Rat
Predicted	Chicken, Mouse
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Calculated MW	48139

**Phospho-JNK/SAPK(Thr183/Tyr185) - Additional Information****Gene ID** 5601**Other Names**

Mitogen-activated protein kinase 9, MAP kinase 9, MAPK 9, 2.7.11.24, JNK-55, Stress-activated protein kinase 1a, SAPK1a, Stress-activated protein kinase JNK2, c-Jun N-terminal kinase 2, MAPK9, JNK2, PRKM9, SAPK1A

**Target/Specificity**

This antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 157-189 amino acids from human.

**Dilution**

WB~~1:500

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Phospho-JNK/SAPK(Thr183/Tyr185) is for research use only and not for use in diagnostic or therapeutic procedures.

**Phospho-JNK/SAPK(Thr183/Tyr185) - 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:[22441692](#)). Phosphorylates POU5F1, which results in the inhibition of POU5F1's transcriptional activity and enhances its proteasomal degradation (By similarity).

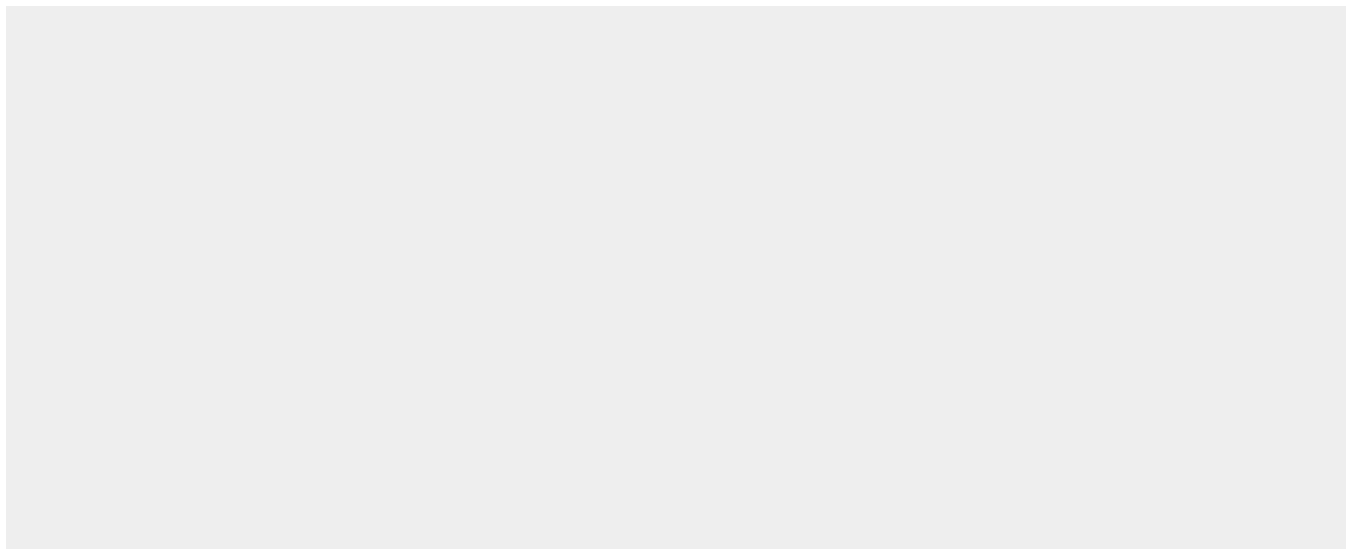
**Cellular Location**

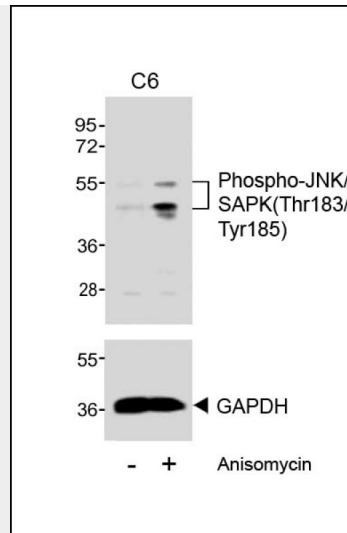
Cytoplasm. Nucleus. Note=Colocalizes with POU5F1 in the nucleus.  
{ECO:0000250|UniProtKB:Q9WTU6}

**Phospho-JNK/SAPK(Thr183/Tyr185) - Protocols**

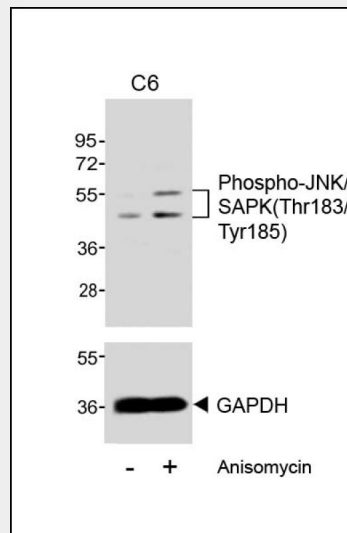
Provided below are standard protocols that you may find useful for product applications.

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

**Phospho-JNK/SAPK(Thr183/Tyr185) - Images**



Western blot analysis of extracts from C6 cells, untreated or treated with anisomycin (25 µg/ml), using Phospho-JNK/SAPK(Thr183/Tyr185) (upper) or GAPDH (lower).



Western blot analysis of extracts from C6 cells, untreated or treated with anisomycin (25 µg/ml), using Phospho-JNK/SAPK(Thr183/Tyr185) (upper) or GAPDH (lower).

### Phospho-JNK/SAPK(Thr183/Tyr185) - Background

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 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-ARNTL/BMAL1 heterodimer and plays a role in the regulation of the circadian clock (PubMed:22441692).

#### **Phospho-JNK/SAPK(Thr183/Tyr185) - References**

Sluss H.K.,et al.Mol. Cell. Biol. 14:8376-8384(1994).  
Kallunki T.,et al.Genes Dev. 8:2996-3007(1994).  
Gupta S.,et al.EMBO J. 15:2760-2770(1996).  
Wang P.,et al.BMB Rep. 43:738-743(2010).  
Halleck A.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.

#### **Phospho-JNK/SAPK(Thr183/Tyr185) - Citations**

- [Protective Effects and Mechanism of Meretrix meretrix Oligopeptides against Nonalcoholic Fatty Liver Disease.](#)