

MAPK9 / JNK2 alpha (aa217-230) Antibody (internal region)
Peptide-affinity purified goat antibody
Catalog # AF3716a

Specification

MAPK9 / JNK2 alpha (aa217-230) Antibody (internal region) - Product Information

Application	WB
Primary Accession	P45984
Other Accession	NP_620707.1 , NP_002743.3 , NP_001128516.1 , 5601 , 26420 (mouse) , 50658 (rat)
Reactivity	Human
Predicted	Mouse, Rat, Dog
Host	Goat
Clonality	Polyclonal
Concentration	0.5 mg/ml
Isotype	IgG
Calculated MW	48139

MAPK9 / JNK2 alpha (aa217-230) Antibody (internal region) - 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

Format

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

MAPK9 / JNK2 alpha (aa217-230) Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

MAPK9 / JNK2 alpha (aa217-230) Antibody (internal region) - 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:10376527, PubMed:15805466, PubMed:17525747, PubMed:19675674, PubMed:20595622, PubMed:21364637, PubMed:22441692, PubMed:34048572). 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:10376527, PubMed:15805466, PubMed:17525747, PubMed:19675674, PubMed:20595622, PubMed:21364637, PubMed:22441692, PubMed:34048572). 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:10376527). In response to oxidative or ribotoxic stresses, inhibits rRNA synthesis by phosphorylating and inactivating the RNA polymerase 1-specific transcription initiation factor RRN3 (PubMed:15805466). Promotes stressed cell apoptosis by phosphorylating key regulatory factors including TP53 and YAP1 (PubMed:17525747, PubMed:21364637). In T-cells, MAPK8 and MAPK9 are required for polarized differentiation of T-helper cells into Th1 cells (PubMed:19290929). Upon T-cell receptor (TCR) stimulation, is activated by CARMA1, BCL10, MAP2K7 and MAP3K7/TAK1 to regulate JUN protein levels (PubMed:19290929). Plays an important role in the osmotic stress-induced epithelial tight-junctions disruption (PubMed:20595622). When activated, promotes beta-catenin/CTNNB1 degradation and inhibits the canonical Wnt signaling pathway (PubMed:19675674). 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:22441692). 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:34048572).

Cellular Location

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

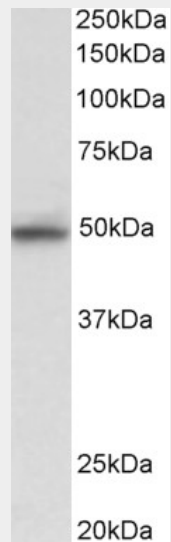
MAPK9 / JNK2 alpha (aa217-230) Antibody (internal region) - Protocols

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](#)

MAPK9 / JNK2 alpha (aa217-230) Antibody (internal region) - Images



AF3716a (0.03 µg/ml) staining of HeLa lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

MAPK9 / JNK2 alpha (aa217-230) Antibody (internal region) - Background

This antibody is expected to recognize isoforms alpha1, alpha 2, and gamma (NP_620707.1; NP_002743.3; NP_001128516.1).

MAPK9 / JNK2 alpha (aa217-230) Antibody (internal region) - References

Diverse functions of JNK signaling and c-Jun in stress response and apoptosis. Leppä S, Bohmann D. *Oncogene*. 1999 Nov 1;18(45):6158-62. PMID: 10557107