

Mouse Mapk9 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14446c**Specification**

Mouse Mapk9 Antibody (Center) - Product Information

Application	WB, IHC-P,E
Primary Accession	O9WTU6
Other Accession	NP_997575.2 , NP_058657.1
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	48189
Antigen Region	206-233

Mouse Mapk9 Antibody (Center) - Additional Information**Gene ID** 26420**Other Names**

Mitogen-activated protein kinase 9, MAP kinase 9, MAPK 9, Stress-activated protein kinase JNK2, c-Jun N-terminal kinase 2, Mapk9, Jnk2, Prkm9

Target/Specificity

This Mouse Mapk9 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 206-233 amino acids from the Central region of mouse Mapk9.

Dilution

WB~~1:1000

IHC-P~~1:10~50

E~~Use at an assay dependent concentration.

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

Mouse Mapk9 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Mouse Mapk9 Antibody (Center) - Protein Information**Name** Mapk9

Synonyms Jnk2, Prkm9

Function Serine/threonine-protein kinase involved in various processes such as cell proliferation, differentiation, migration, transformation and programmed cell death (PubMed:[10811224](#), PubMed:[11562351](#), PubMed:[16973441](#), PubMed:[21554942](#), PubMed:[22441692](#), PubMed:[29153991](#), PubMed:[9806643](#)). 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:[10811224](#), PubMed:[11562351](#), PubMed:[16973441](#), PubMed:[21554942](#), PubMed:[22441692](#), PubMed:[29153991](#), PubMed:[9806643](#)). In this cascade, two dual specificity kinases MAP2K4/MKK4 and MAP2K7/MKK7 phosphorylate and activate MAPK9/JNK2 (By similarity). 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 (By similarity). In response to oxidative or ribotoxic stresses, inhibits rRNA synthesis by phosphorylating and inactivating the RNA polymerase 1-specific transcription initiation factor RRN3 (By similarity). Promotes stressed cell apoptosis by phosphorylating key regulatory factors including TP53 and YAP1 (By similarity). In T-cells, MAPK8 and MAPK9 are required for polarized differentiation of T-helper cells into Th1 cells (PubMed:[10811224](#)). Upon T-cell receptor (TCR) stimulation, is activated by CARMA1, BCL10, MAP2K7 and MAP3K7/TAK1 to regulate JUN protein levels (PubMed:[10811224](#)). Plays an important role in the osmotic stress-induced epithelial tight-junctions disruption (By similarity). When activated, promotes beta-catenin/CTNNB1 degradation and inhibits the canonical Wnt signaling pathway (By similarity). Also participates in neurite growth in spiral ganglion neurons (PubMed:[21554942](#)). 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 (PubMed:[29153991](#)). Phosphorylates ALKBH5 in response to reactive oxygen species (ROS), promoting ALKBH5 sumoylation and inactivation (By similarity).

Cellular Location

Cytoplasm {ECO:0000250|UniProtKB:P45984}. Nucleus. Note=Colocalizes with POU5F1 in the nucleus.

Tissue Location

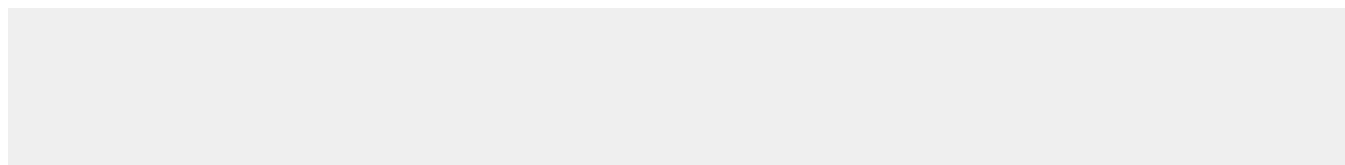
All four isoforms are widely distributed in brain. Isoforms alpha-1 and alpha-2 are predominantly expressed in hippocampus, cerebral cortex, caudate-putamen, amygdala and the granule layer of the cerebellum. Alpha-1 is more abundant than alpha-2 in the periaqueductal region and the substantia nigra

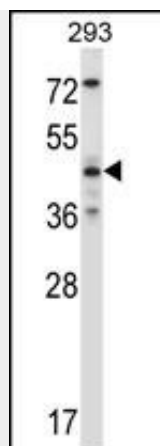
Mouse Mapk9 Antibody (Center) - Protocols

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

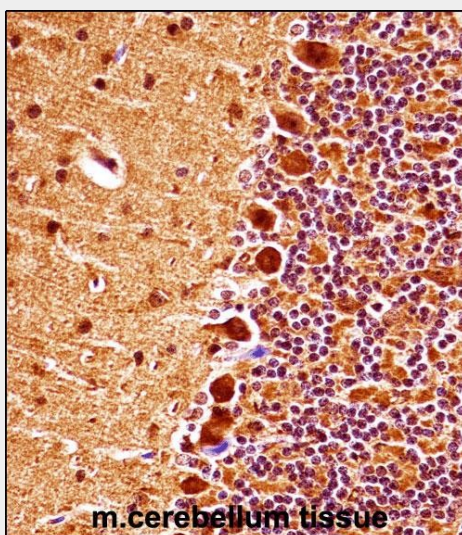
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Mouse Mapk9 Antibody (Center) - Images





Mouse Mapk9 Antibody (Center) (Cat. #AP14446c) western blot analysis in 293 cell line lysates (35ug/lane). This demonstrates the Mapk9 antibody detected the Mapk9 protein (arrow).



Mouse Mapk9 Antibody (Center) (AP14446c) immunohistochemistry analysis in formalin fixed and paraffin embedded mouse cerebellum tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of Mouse Mapk9 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

Mouse Mapk9 Antibody (Center) - Background

Mapk9 responds to activation by environmental stress and pro-inflammatory cytokines by phosphorylating a number of transcription factors, primarily components of AP-1 such as c-Jun and ATF2 and thus regulates AP-1 transcriptional activity. In T-cells, JNK1 and JNK2 are required for polarized differentiation of T-helper cells into Th1 cells.

Mouse Mapk9 Antibody (Center) - References

- Sherrin, T., et al. J. Neurosci. 30(40):13348-13361(2010)
- Yeap, Y.Y., et al. Biochem. J. 430(2):345-354(2010)
- Samak, G., et al. Am. J. Physiol. Gastrointest. Liver Physiol. 299 (3), G572-G584 (2010) :
- Cao, Y., et al. Immunol. Lett. 132 (1-2), 38-44 (2010) :
- Cellurale, C., et al. PLoS ONE 5 (8), E12469 (2010) :