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Mouse Mapk9 Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP14446c

Specification

Mouse Mapk9 Antibody (Center) Blocking Peptide - Product Information

Primary Accession Q9WTU6

Mouse Mapk9 Antibody (Center) Blocking Peptide - 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

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Mouse Mapk9 Antibody (Center) Blocking Peptide - 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. 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 (PubMed:29153991).

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) Blocking Peptide - Protocols

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

- Blocking Peptides

Mouse Mapk9 Antibody (Center) Blocking Peptide - Images

Mouse Mapk9 Antibody (Center) Blocking Peptide - 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) Blocking Peptide - 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) :