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Mouse Mapkapk5 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP14447a

Specification

Mouse Mapkapk5 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession O54992

Mouse Mapkapk5 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 17165

Other Names
MAP kinase-activated protein kinase 5, MAPK-activated protein kinase 5, MAPKAP kinase 5, MAPKAPK-5, Mapkapk5

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 Mapkapk5 Antibody (N-term) Blocking Peptide - Protein Information

Name Mapkapk5

Function
Tumor suppressor serine/threonine-protein kinase involved in mTORC1 signaling and post-transcriptional regulation. Phosphorylates FOXO3, ERK3/MAPK6, ERK4/MAPK4, HSP27/HSPB1, p53/TP53 and RHEB. Acts as a tumor suppressor by mediating Ras-induced senescence and phosphorylating p53/TP53. Involved in post-transcriptional regulation of MYC by mediating phosphorylation of FOXO3: phosphorylation of FOXO3 leads to promote nuclear localization of FOXO3, enabling expression of miR-34b and miR-34c, 2 post-transcriptional regulators of MYC that bind to the 3'UTR of MYC transcript and prevent MYC translation. Acts as a negative regulator of mTORC1 signaling by mediating phosphorylation and inhibition of RHEB. Part of the atypical MAPK signaling via its interaction with ERK3/MAPK6 or ERK4/MAPK4: the precise role of the complex formed with ERK3/MAPK6 or ERK4/MAPK4 is still unclear, but the complex follows a complex set of phosphorylation events: upon interaction with atypical MAPK (ERK3/MAPK6 or ERK4/MAPK4), ERK3/MAPK6 (or ERK4/MAPK4) is phosphorylated and then mediates phosphorylation and activation of MAPKAPK5, which in turn phosphorylates ERK3/MAPK6 (or ERK4/MAPK4). Mediates phosphorylation of HSP27/HSPB1 in response to PKA/PRKACA stimulation, inducing F-actin rearrangement.

Cellular Location

Cytoplasm. Nucleus. Note=Translocates to the cytoplasm following phosphorylation and activation. Interaction with ERK3/MAPK6 or ERK4/MAPK4 and phosphorylation at Thr-182, activates the protein kinase activity, followed by translocation to the cytoplasm Phosphorylation by PKA/PRKACA at Ser-115 also induces nuclear export

Tissue Location
Expressed ubiquitously.

Mouse Mapkapk5 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

Mouse Mapkapk5 Antibody (N-term) Blocking Peptide - Images

Mouse Mapkapk5 Antibody (N-term) Blocking Peptide - Background

Mapkapk5 mediates stress-induced small heat shock protein 27 phosphorylation (By similarity).

Mouse Mapkapk5 Antibody (N-term) Blocking Peptide - References

Dingar, D., et al. Cell. Signal. 22(7):1063-1075(2010)Gerits, N., et al. Cell. Mol. Biol. Lett. 14(4):548-574(2009)Li, Q., et al. J. Biol. Chem. 283(16):11014-11023(2008)Sun, P., et al. Cell 128(2):295-308(2007)Seternes, O.M., et al. EMBO J. 23(24):4780-4791(2004)