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Mouse Mapk15 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP14626a

Specification

Mouse Mapk15 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q80Y86

Mouse Mapk15 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 332110

Other Names
Mitogen-activated protein kinase 15, MAP kinase 15, MAPK 15, Extracellular signal-regulated kinase 7, ERK-7, Mapk15, Erk7

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 Mapk15 Antibody (N-term) Blocking Peptide - Protein Information

Name Mapk15 {ECO:0000312|MGI:MGI:2652894}

Function
Atypical MAPK protein that regulates several process such as autophagy, ciliogenesis, protein trafficking/secretion and genome integrity, in a kinase activity-dependent manner (By similarity) (PubMed:25823377). Controls both, basal and starvation-induced autophagy throught its interaction with GABARAP, MAP1LC3B and GABARAPL1 leading to autophagosome formation, SQSTM1 degradation and reduced MAP1LC3B inhibitory phosphorylation. Regulates primary cilium formation and the localization of ciliary proteins involved in cilium structure, transport, and signaling. Prevents the relocation of the sugar-adding enzymes from the Golgi to the endoplasmic reticulum, thereby restricting the production of sugar-coated proteins. Upon amino-acid starvation, mediates transitional endoplasmic reticulum site disassembly and inhibition of secretion. Binds to chromatin leading to MAPK15 activation and interaction with PCNA, that which protects genomic integrity by inhibiting MDM2-mediated degradation of PCNA. Regulates DA transporter (DAT) activity and protein expression via activation of RhoA. In response to H(2)O(2) treatment phosphorylates ELAVL1, thus preventing it from binding to the PDCD4 3'UTR and rendering the PDCD4 mRNA accessible to miR-21 and leading to its degradation and loss of protein expression (By similarity). Also functions in a kinase activity-independent manner as a negative regulator of growth (By similarity). Phosphorylates in vitro FOS and MBP (By similarity). During oocyte maturation, plays a

key role in the microtubule organization and meiotic cell cycle progression in oocytes, fertilized eggs, and early embryos (PubMed:23351492). Interacts with ESRRA promoting its re-localization from the nucleus to the cytoplasm and then prevents its transcriptional activity (By similarity).

Cellular Location
Cytoplasm, cytoskeleton, cilium basal body {ECO:0000250|UniProtKB:Q8TD08}. Cell junction, tight junction {ECO:0000250|UniProtKB:Q8TD08}. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriole {ECO:0000250|UniProtKB:Q8TD08}. Cytoplasmic vesicle, autophagosome {ECO:0000250|UniProtKB:Q8TD08}. Golgi apparatus {ECO:0000250|UniProtKB:Q8TD08}. Nucleus {ECO:0000250|UniProtKB:Q8TD08} Cytoplasm {ECO:0000250|UniProtKB:Q8TD08}. Cytoplasm, cytoskeleton, spindle. Note=Co-localizes to the cytoplasm only in presence of ESRRA. Translocates to the nucleus upon activation (By similarity). At prometaphase I, metaphase I (MI), anaphase I, telophase I, and metaphase II (MII) stages, is stably detected at the spindle (PubMed:23351492) {ECO:0000250|UniProtKB:Q8TD08, ECO:0000269|PubMed:23351492}

Tissue Location
Expressed at all stages of oocyte meiotic maturation.

Mouse Mapk15 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

Mouse Mapk15 Antibody (N-term) Blocking Peptide - Images

Mouse Mapk15 Antibody (N-term) Blocking Peptide - Background

Constitutively active kinase which may function as a negative regulator of cell growth (By similarity).

Mouse Mapk15 Antibody (N-term) Blocking Peptide - References

Xu, Y.M., et al. Cancer Res. 70(8):3218-3227(2010)Iavarone, C., et al. J. Biol. Chem. 281(15):10567-10576(2006)