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Mouse Stk4 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP17318b

Specification

Mouse Stk4 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession Q9JI11

Mouse Stk4 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 58231

Other Names
Serine/threonine-protein kinase 4, Mammalian STE20-like protein kinase 1, MST-1, STE20-like kinase MST1, Serine/threonine-protein kinase 4 37kDa subunit, MST1/N, Serine/threonine-protein kinase 4 18kDa subunit, MST1/C, Stk4, Mst1

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 Stk4 Antibody (C-term) Blocking Peptide - Protein Information

Name Stk4

Synonyms Mst1

Function
Stress-activated, pro-apoptotic kinase which, following caspase-cleavage, enters the nucleus and induces chromatin condensation followed by internucleosomal DNA fragmentation. Key component of the Hippo signaling pathway which plays a pivotal role in organ size control and tumor suppression by restricting proliferation and promoting apoptosis. The core of this pathway is composed of a kinase cascade wherein STK3/MST2 and STK4/MST1, in complex with its regulatory protein SAV1, phosphorylates and activates LATS1/2 in complex with its regulatory protein MOB1, which in turn phosphorylates and inactivates YAP1 oncoprotein and WWTR1/TAZ. Phosphorylation of YAP1 by LATS2 inhibits its translocation into the nucleus to regulate cellular genes important for cell proliferation, cell death, and cell migration. STK3/MST2 and STK4/MST1 are required to repress proliferation of mature hepatocytes, to prevent activation of facultative adult liver stem cells (oval cells), and to inhibit tumor formation. Phosphorylates 'Ser-14' of histone H2B (H2BS14ph) during apoptosis. Phosphorylates FOXO3 upon oxidative stress, which results in its nuclear translocation and cell death initiation. Phosphorylates MOBKL1A, MOBKL1B and RASSF2. Phosphorylates TNNI3 (cardiac Tn-I) and alters its binding affinity to TNNC1 (cardiac Tn-C) and TNNT2 (cardiac Tn-T).

Phosphorylates FOXO1 on 'Ser-212' and regulates its activation and stimulates transcription of PMAIP1 in a FOXO1-dependent manner. Phosphorylates SIRT1 and inhibits SIRT1-mediated p53/TP53 deacetylation, thereby promoting p53/TP53 dependent transcription and apoptosis upon DNA damage. Acts as an inhibitor of PKB/AKT1. Phosphorylates AR on 'Ser-650' and suppresses its activity by intersecting with PKB/AKT1 signaling and antagonizing formation of AR-chromatin complexes (By similarity).

Cellular Location
Cytoplasm. Nucleus. Note=The caspase-cleaved form cycles between nucleus and cytoplasm

Mouse Stk4 Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

Mouse Stk4 Antibody (C-term) Blocking Peptide - Images

Mouse Stk4 Antibody (C-term) Blocking Peptide - Background

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Oh, H.J., et al. Curr. Biol. 20(5):416-422(2010)Lu, L., et al. Proc. Natl. Acad. Sci. U.S.A. 107(4):1437-1442(2010)Song, H., et al. Proc. Natl. Acad. Sci. U.S.A. 107(4):1431-1436(2010)Song, H., et al. Biochem. Biophys. Res. Commun. 391(1):969-973(2010)Choi, J., et al. PLoS ONE 4 (11), E8011 (2009) :