

Mouse Stk3 Antibody (C-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16096b

Specification

Mouse Stk3 Antibody (C-term) - Product Information

Application	WB,E
Primary Accession	O9JI10
Other Accession	O54748 , O13188 , NP_062609.2
Reactivity	Human
Predicted	Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	56855
Antigen Region	387-415

Mouse Stk3 Antibody (C-term) - Additional Information

Gene ID 56274

Other Names

Serine/threonine-protein kinase 3, Mammalian STE20-like protein kinase 2, MST-2, STE20-like kinase MST2, Serine/threonine-protein kinase 3 36kDa subunit, MST2/N, Serine/threonine-protein kinase 3 20kDa subunit, MST2/C, Stk3, Mess1, Mst2

Target/Specificity

This Mouse Stk3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 387-415 amino acids from the C-terminal region of mouse Stk3.

Dilution

WB~~1:1000

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 Stk3 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Mouse Stk3 Antibody (C-term) - Protein Information

Name Stk3

Synonyms Mess1, Mst2

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 NKX2-1. Phosphorylates NEK2 and plays a role in centrosome disjunction by regulating the localization of NEK2 to centrosomes, and its ability to phosphorylate CROCC and CEP250. In conjunction with SAV1, activates the transcriptional activity of ESR1 through the modulation of its phosphorylation. Positively regulates RAF1 activation via suppression of the inhibitory phosphorylation of RAF1 on 'Ser-259'. Phosphorylates MOBKL1A and RASSF2. Phosphorylates MOBKL1B on 'Thr-74'. Acts cooperatively with MOBKL1B to activate STK38 (By similarity).

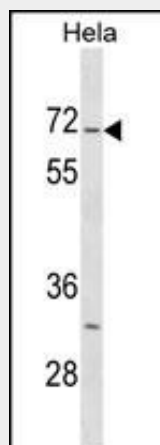
Cellular Location

Cytoplasm. Nucleus. Note=The caspase-cleaved form cycles between nucleus and cytoplasm (By similarity). Phosphorylation at Thr- 117 leads to inhibition of nuclear translocation (By similarity) {ECO:0000250|UniProtKB:Q13188}

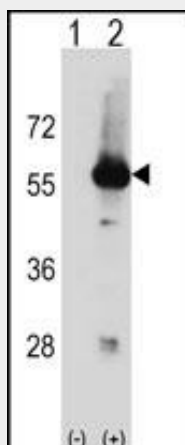
Mouse Stk3 Antibody (C-term) - Protocols

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 Stk3 Antibody (C-term) - Images

Mouse Stk3 Antibody (C-term) (Cat. #AP16096b) western blot analysis in Hela cell line lysates (35ug/lane). This demonstrates the Stk3 antibody detected the Stk3 protein (arrow).



Western blot analysis of Stk3 (arrow) using rabbit polyclonal Mouse Stk3 Antibody (C-term) (Cat. #AP16096b). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the Stk3 gene.

Mouse Stk3 Antibody (C-term) - Background

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 MST1/MST2, 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. MST1/MST2 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 NKX2-1.

Mouse Stk3 Antibody (C-term) - References

- 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)
- Zhou, D., et al. Cancer Cell 16(5):425-438(2009)
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