

Product datasheet

Anti-LATS1 antibody ab70561

★★★★☆ 1 Abreviews 4 References 2 Images

Overview

Product name	Anti-LATS1 antibody
Description	Rabbit polyclonal to LATS1
Host species	Rabbit
Tested applications	Suitable for: WB, IP
Species reactivity	Reacts with: Mouse, Human Predicted to work with: Horse, Dog, Chimpanzee, Gorilla, Chinese hamster
Immunogen	Synthetic peptide corresponding to a region between residues 50 and 100 of human LATS1 (SwissProt: O95835).
Positive control	Whole cell lysate from HeLa Cells.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: 0.09% Sodium Azide Constituents: 0.1% BSA, Tris buffered saline
Purity	Immunogen affinity purified
Purification notes	ab70561 was affinity purified using an epitope specific to LATS1 (WARTS) immobilized on solid support.
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab70561** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★☆	1/5000 - 1/15000. Detects a band of approximately 160 kDa (predicted molecular weight: 127 kDa).

Application	Abreviews	Notes
IP		Use at 2-5 µg/mg of lysate.

Target

Function

Negative regulator of YAP1 in the Hippo signaling pathway that 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 LATS1 inhibits its translocation into the nucleus to regulate cellular genes important for cell proliferation, cell death, and cell migration. Acts as a tumor suppressor which plays a critical role in maintenance of ploidy through its actions in both mitotic progression and the G1 tetraploidy checkpoint. Negatively regulates G2/M transition by down-regulating CDK1 kinase activity. Involved in the control of p53 expression. Affects cytokinesis by regulating actin polymerization through negative modulation of LIMK1. May also play a role in endocrine function.

Tissue specificity

Expressed in all adult tissues examined except for lung and kidney.

Sequence similarities

Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family.
 Contains 1 AGC-kinase C-terminal domain.
 Contains 1 protein kinase domain.
 Contains 1 UBA domain.

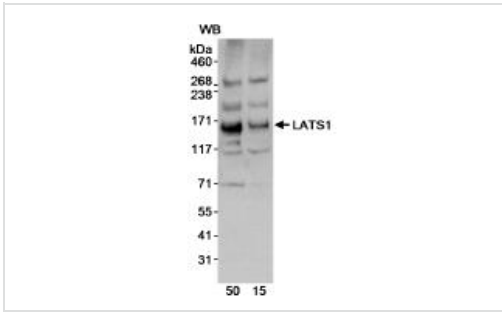
Post-translational modifications

Autophosphorylated and phosphorylated during M-phase of the cell cycle. Phosphorylated by STK3/MST2 at Ser-909 and Thr-1079, which results in its activation. Phosphorylation at Ser-464 by NUA1 and NUA2 leads to decreased protein level and is required to regulate cellular senescence and cellular ploidy.

Cellular localization

Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Localizes to the centrosomes throughout interphase but migrates to the mitotic apparatus, including spindle pole bodies, mitotic spindle, and midbody, during mitosis.

Images



Western blot - LATS1 antibody (ab70561)

All lanes : Anti-LATS1 antibody (ab70561) at 0.02 µg/ml

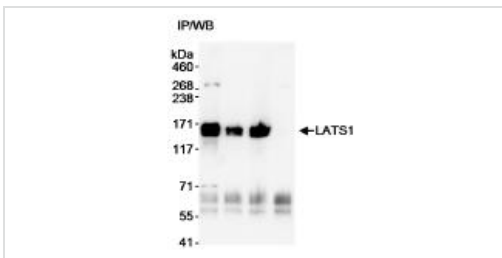
Lane 1 : Whole cell lysate from HeLa cells at 50 µg

Lane 2 : Whole cell lysate from HeLa cells at 15 µg

Predicted band size: 127 kDa

Observed band size: 160 kDa

Additional bands at: 117 kDa, 200 kDa, 268 kDa, 71 kDa. We are unsure as to the identity of these extra bands.



Immunoprecipitation - LATS1 antibody (ab70561)

Detection of human LATS1 by Immunoprecipitation in whole cell lysate from HeLa cells (1 mg, 1/4 of immunoprecipitate loaded/lane), using ab70561 at 3 µg/mg of lysate (lane 1).

LATS1 was also immunoprecipitated with an other LATS1 antibody (lanes 2) and with [ab70562](#) (lane 3) using 3 µg/mg lysate.

Lane 4: Control IgG immunoprecipitate.

Subsequent Western blot detection of LATS1 was performed using ab70561 at 0.1 µg/ml.

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