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Anti-LATS1 Antibody
Rabbit polyclonal antibody to LATS1
Catalog # AP59945

Specification

Anti-LATS1 Antibody - Product Information

Application	**WB**
Primary Accession	O95835
Other Accession	Q8BYR2
Reactivity	**Human, Mouse, Rat, Monkey**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**126870**

Anti-LATS1 Antibody - Additional Information

Gene ID 9113

Other Names
WARTS; Serine/threonine-protein kinase LATS1; Large tumor suppressor homolog 1; WARTS protein kinase; h-warts

Target/Specificity
Recognizes endogenous levels of LATS1 protein.

Dilution
WB~~WB (1/500 - 1/1000)

Format
Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage
Store at -20 °C.Stable for 12 months from date of receipt

Anti-LATS1 Antibody - Protein Information

Name LATS1 {ECO:0000312|EMBL:AAD16882.1}

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 (PubMed:10518011, PubMed:10831611, PubMed:18158288, PubMed:26437443, PubMed:28068668). 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 (PubMed:18158288, PubMed:26437443, PubMed:28068668). Phosphorylation of YAP1 by LATS1 inhibits its translocation into the nucleus to regulate cellular genes important for cell proliferation, cell death, and cell migration (PubMed:18158288, PubMed:26437443, PubMed:28068668). 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 (PubMed:15122335, PubMed:19927127). Negatively regulates G2/M transition by down-regulating CDK1 kinase activity (PubMed:9988268). Involved in the control of p53 expression (PubMed:15122335). Affects cytokinesis by regulating actin polymerization through negative modulation of LIMK1 (PubMed:15220930). May also play a role in endocrine function. Plays a role in mammary gland epithelial cell differentiation, both through the Hippo signaling pathway and the intracellular estrogen receptor signaling pathway by promoting the degradation of ESR1 (PubMed:28068668). Acts as an activator of the NLRP3 inflammasome by mediating phosphorylation of 'Ser-265' of NLRP3 following NLRP3 palmitoylation, promoting NLRP3 activation by NEK7 (PubMed:39173637).

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

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

Anti-LATS1 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-LATS1 Antibody - Images

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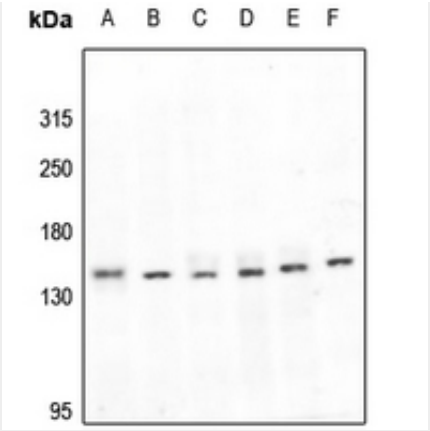

Western blot analysis of LATS1 expression in LO2 (A), SGC7901 (B), HEK293T (C), A549 (D), mouse embryo (E), rat heart (F) whole cell lysates.

Anti-LATS1 Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human LATS1. The exact sequence is proprietary.