

Rabbit LATS1 Polyclonal Antibody | anti-LATS1 antibody

LATS1 Antibody (N-term)

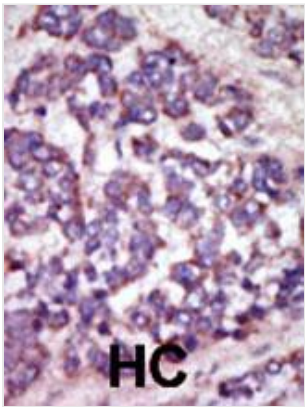
CATALOG # AAA284761	HOST Rabbit	REACTIVITY Human, mouse, rat	APPLICATIONS Immunohistochemistry, ELISA, Western Blot
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PRODUCT SYNONYMS

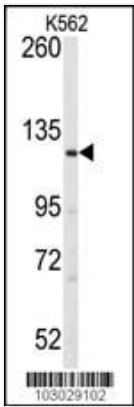
LATS1; Polyclonal Antibody; LATs1 Antibody (N-term); Serine/threonine-protein kinase LATs1; Large tumor suppressor homolog 1; WARTS protein kinase; h-warts; LATs1 {ECO:0000312|EMBL:AAD168821}; anti-LATS1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, mouse, rat
Clonality	Polyclonal
Isotype	Rabbit Ig
Specificity	This LATs1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human LATs1.
Purity/Purification	Purified Rabbit Polyclonal Antibody (Pab)
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Sequence Positions	1-30
Sequence Length	690
Applicable Applications for anti-LATS1 antibody	IHC (Immunohistochemistry), ELISA, WB (Western Blot)
Antigen Type	Synthetic Peptide
Antigen Source	HUMAN
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.
Cellular Location	Cytoplasm, cytoskeleton, microtubule organizing center, centrosome 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.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.



IHC (Immunohistochemistry)
Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



WB (Western Blot)
Western blot analysis of anti-LATS1 Antibody (N-term) in K562 cell line lysates (35ug/lane). LATS1 (arrow) was detected using the purified Pab.

ADDITIONAL INFORMATION

Related Product Information for anti-LATS1 antibody	The protein encoded by this gene is a putative serine/threonine kinase that localizes to the mitotic apparatus and complexes with cell cycle controller CDC2 kinase in early mitosis. The protein is phosphorylated in a cell-cycle dependent manner, with late prophase phosphorylation remaining through metaphase. The N-terminal region of the protein binds CDC2 to form a complex showing reduced H1 histone kinase activity, indicating a role as a negative regulator of CDC2/cyclin A. In addition, the C-terminal kinase domain binds to its own N-terminal region, suggesting potential negative regulation through interference with complex formation via intramolecular binding. Biochemical and genetic data suggest a role as a tumor suppressor. This is supported by studies in knockout mice showing development of soft-tissue sarcomas, ovarian stromal cell tumors and a high sensitivity to carcinogenic treatments.
Product Categories/Family for anti-LATS1 antibody	Cancer; Cell Biology; Signal transduction
References	Iida, S., et al., Oncogene 23(31):5266-5274 (2004). Yang, X., et al., Nat. Cell Biol. 6(7):609-617 (2004). Kamikubo, Y., et al., J. Biol. Chem. 278(20):17609-17614 (2003). Hisaoka, M., et al., Lab. Invest. 82(10):1427-1435 (2002). Hirota, T., et al., J. Cell Biol. 149(5):1073-1086 (2000).

NCBI AND UNIPROT INFORMATION

NCBI GI #	395394049
NCBI GeneID	9113
NCBI Accession #	NP_001257448.1; NP_004681.1
NCBI GenBank Nucleotide #	NM_001270519.1
UniProt Accession #	O95835; Q6PKD0
Molecular Weight	126870
NCBI Official Full Name	serine/threonine-protein kinase LATS1 isoform 2
NCBI Official Synonym Full Names	large tumor suppressor kinase 1
NCBI Official Symbol	LATS1
NCBI Official Synonym Symbols	wt5; WARTS
NCBI Protein Information	serine/threonine-protein kinase LATS1

UniProt Protein Name	Serine/threonine-protein kinase LATS1
UniProt Gene Name	LATS1
UniProt Synonym Gene Names	h-warts
UniProt Entry Name	LATS1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/lats1-antibody-immunohistochemistry-western-blot-elisa/284761>