

**Product Name: LATS1/2 Rabbit Polyclonal Antibody****Catalog #: AP Rab13235**

For research use only.

**Summary**

<b>Description</b>	Rabbit polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB,IHC,ICC/IF,ELISA
<b>Reactivity</b>	Human,Mouse
<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	IgG
<b>Clonality</b>	Polyclonal
<b>Form</b>	Liquid
<b>Concentration</b>	1mg/ml
<b>Storage</b>	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
<b>Shipping</b>	Ice bags
<b>Buffer</b>	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
<b>Purification</b>	Affinity purification

**Application**

<b>Dilution Ratio</b>	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:100-1:300,ELISA 1:10000-1:20000
<b>Molecular Weight</b>	130-140kDa

**Antigen Information**

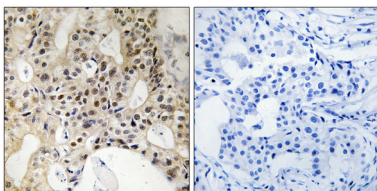
<b>Gene Name</b>	LATS1/LATS2
<b>Alternative Names</b>	LATS1; WARTS; Serine/threonine-protein kinase LATS1; Large tumor suppressor homolog 1; WARTS protein kinase; h-warts; LATS2; KPM; Serine/threonine-protein kinase LATS2; Kinase phosphorylated during mitosis protein; Large tumor suppressor ho
<b>Gene ID</b>	9113/26524
<b>SwissProt ID</b>	O95835/Q9NRM7
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human LATS1/2. AA range:1041-1090

## Background

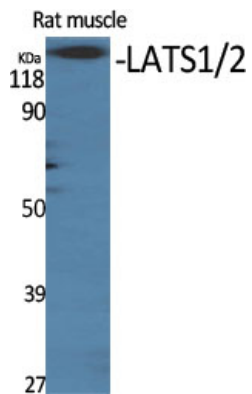
The protein encoded by this gene is a putative serine/threonine kinase that localizes to the mitotic apparatus and complexes with cell cycle controller CDC2 kinase in early mitosis. The protein is phosphorylated in a cell-cycle dependent manner, with late prophase phosphorylation remaining through metaphase. 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 treatment. catalytic activity: ATP + a protein = ADP + a phosphoprotein., cofactor: Magnesium., function: 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 CDC2 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., PTM: Autophosphorylated and phosphorylated during M-phase of the cell cycle. Phosphorylated by STK3 at Ser-909 and Thr-1079, which results in its activation. Phosphorylated upon DNA damage, probably by ATM or ATR., similarity: Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family., similarity: Contains 1 AGC-kinase C-terminal domain., similarity: Contains 1 protein kinase domain., similarity: Contains 1 UBA domain., subcellular location: Localizes to the centrosomes throughout interphase but migrates to the mitotic apparatus, including spindle pole bodies, mitotic spindle, and midbody, during mitosis., subunit: Complexes with CDC2 in early mitosis. LATS1-associated CDC2 has no mitotic cyclin partner and no apparent kinase activity. Binds phosphorylated ZYX, locating this protein to the mitotic spindle and suggesting a role for actin regulatory proteins during mitosis. Binds to and colocalizes with LIMK1 at the actomyosin contractile ring during cytokinesis., tissue specificity: Expressed in all adult tissues examined except for lung and kidney.,

## Research Area

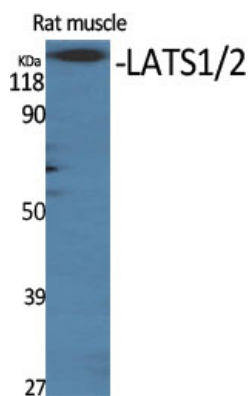
## Image Data



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma tissue, using LATS1/2 Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of LATS1/2 Antibody



Western Blot analysis of various cells using LATS1/2 Polyclonal Antibody diluted at 1 : 500