

Product Name: LATS1/2 (phospho Thr1079/1041) Rabbit Polyclonal Antibody**Catalog #: AP Rab04942**

For research use only.

Summary

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

Application

Dilution Ratio IHC 1:100-1:300, ICC/IF 1:50-1:200, ELISA 1:10000-1:20000

Molecular Weight

Antigen Information

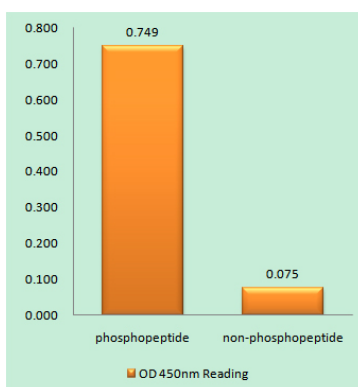
Gene Name	LATS1/LATS2 LATS1; WARTS; Serine/threonine-protein kinase LATS1; Large tumor suppressor homolog 1;
Alternative Names	WARTS protein kinase; h-warts; LATS2; KPM; Serine/threonine-protein kinase LATS2; Kinase phosphorylated during mitosis protein; Large tumor suppressor ho
Gene ID	9113/26524
SwissProt ID	O95835/Q9NRM7
Immunogen	The antiserum was produced against synthesized peptide derived from human LATS1/2 around the phosphorylation site of Thr1079/1041. AA range:1041-1090

Background

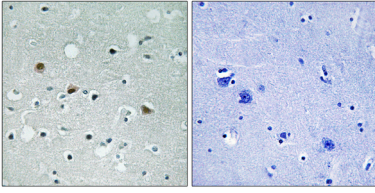
The protein encoded by this gene is a putative serine/threonine kinase that localizes to the mitotic apparatus and complexes with cell cycle controller CDC2 kinase in early mitosis. The protein is phosphorylated in a cell-cycle dependent manner, with late prophase phosphorylation remaining through metaphase. 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



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right) , using LATS1/2 (Phospho-Thr1079/1041) Antibody



Immunohistochemistry analysis of paraffin-embedded human brain, using LATS1/2 (Phospho-Thr1079/1041) Antibody. The picture on the right is blocked with the phospho peptide.