

Product Name: LATS1/2 Rabbit Polyclonal Antibody
Catalog #: AP Rab13234



Summary

Production Name	LATS1/2 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	LATS1 WARTS
Alternative Names	Serine/threonine-protein kinase LATS1 (EC 2.7.11.1) (Large tumor suppressor homolog 1) (WARTS protein kinase) (h-warts)
Gene ID	9113.0
SwissProt ID	O95835.Synthesized peptide derived from human LATS1/2 AA range: 1050-1130

Application

Dilution Ratio	WB 1:500-2000 ELISA 2000-20000
Molecular Weight	140kD

Background

The protein encoded by this gene is a putative serine/threonine kinase that localizes to the mitotic apparatus and

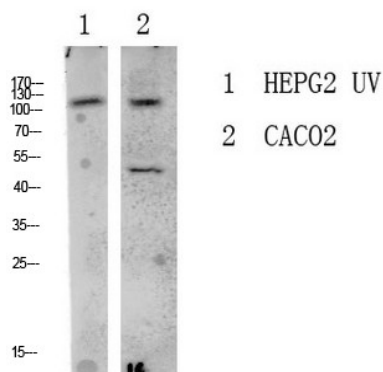
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complexes with cell cycle controller CDC2 kinase in early mitosis. The protein is phosphorylated in a cell-cycle dependent manner, with late prophase phosphorylation remaining through metaphase. The N-terminal region of the protein binds CDC2 to form 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



Western blot analysis of various lysate, antibody was diluted at 1000. Secondary antibody was diluted at 1:20000

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Note

For research use only.