

Product Name: LATS1/2 Rabbit Polyclonal Antibody
Catalog #: APRab13235



Summary

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

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/LATS2
Alternative Names	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
Gene ID	9113/26524
SwissProt ID	O95835/Q9NRM7. The antiserum was produced against synthesized peptide derived from human LATS1/2. AA range: 1041-1090

Application

Dilution Ratio	WB 1:500 - 1:2000. IHC-p: 1:100-300 ELISA: 1:20000.
Molecular Weight	130-140kD

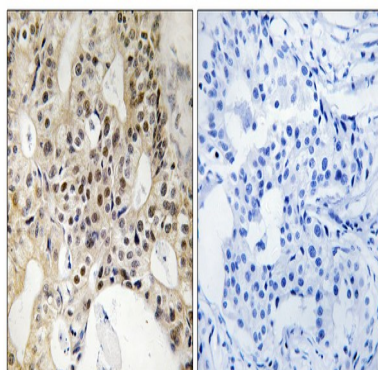
Background

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.,

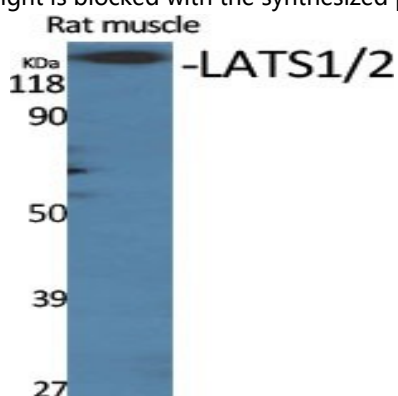
Research Area

Image Data

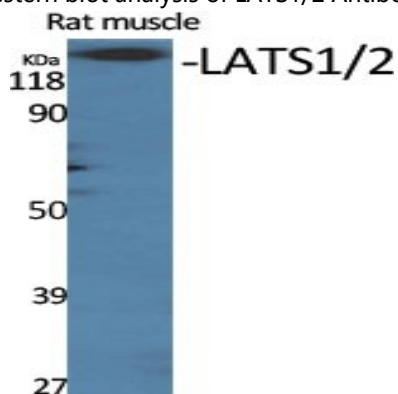
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Immunohistochemistry analysis of paraffin-embedded human breast carcinoma tissue, using LATS1/2 Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of LATS1/2 Antibody



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

Note

For research use only.