Product Name: LATS1 (phospho-Ser909) Rabbit Polyclonal Antibody
Catalog #: APRab04940

Summary

Production Name	LATS1 (phospho-Ser909) Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ELISA
Reactivity	Human,Rat,Mouse

Performance

Conjugation	Unconjugated
Modification	Phospho Antibody
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 phosho peptide around human LATS1/2 (Ser909)

Application

Dilution Ratio	WB 1:500-2000;IHC-p 1:50-300; ELISA 2000-20000
Molecular Weight	140kD

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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 treatmencatalytic 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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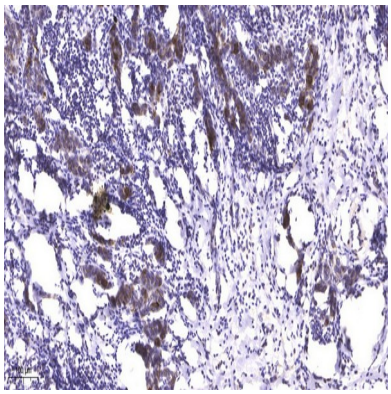
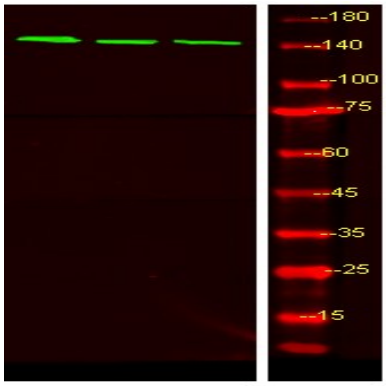


Immunohistochemical analysis of paraffin-embedded human Breast cancer. 1, Antibody was diluted at 1:200（4° overnight）. 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200（room temperature, 45min）.



Western Blot analysis of Hela treated or untreated by LPS lysis, using primary antibody at 1:1000 dilution. Secondary antibody was diluted at 1:10000

Note

For research use only.