



# LATS1/2 (phospho Thr1079/1041) Polyclonal Antibody

<b>Catalog No</b>	YP-Ab-00235
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human;Mouse
<b>Applications</b>	IHC;IF;ELISA
<b>Gene Name</b>	LATS1/LATS2
<b>Protein Name</b>	Serine/threonine-protein kinase LATS1/2
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human LATS1/2 around the phosphorylation site of Thr1079/1041. AA range:1041-1090
<b>Specificity</b>	Phospho-LATS1/2 (T1079/1041) Polyclonal Antibody detects endogenous levels of LATS1/2 protein only when phosphorylated at T1079/1041.
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source</b>	Polyclonal, Rabbit,IgG
<b>Purification</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Dilution</b>	IHC: 1/100 - 1/300. ELISA: 1/20000.. IF 1:50-200
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</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>Observed Band</b>	
<b>Cell Pathway</b>	Cytoplasm, cytoskeleton, microtubule organizing center, centrosome . Cytoplasm, cytoskeleton, spindle . Midbody . Cytoplasm, cytoskeleton, microtubule organizing center, spindle pole body . Localizes to the centrosomes throughout interphase but migrates to the mitotic apparatus, including spindle pole bodies, mitotic spindle, and midbody, during mitosis. .
<b>Tissue Specificity</b>	Expressed in all adult tissues examined except for lung and kidney.
<b>Function</b>	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.,

## 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

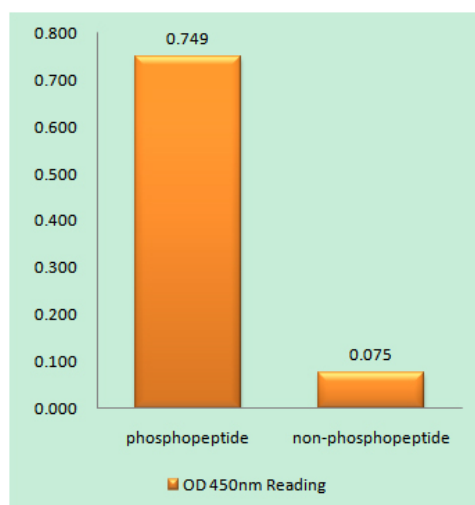
## matters needing attention

Avoid repeated freezing and thawing!

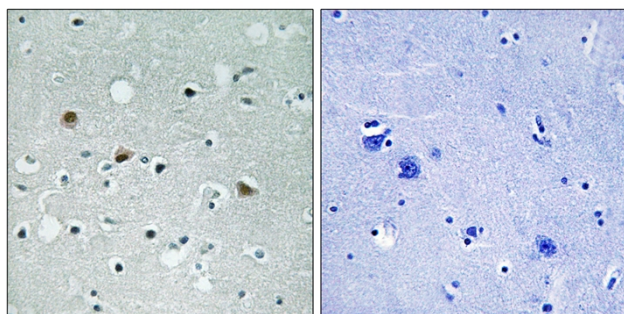
## Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

## Products Images



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 phosphopeptide.