

## LATS1 (Phospho Thr1079) rabbit pAb

<b>Catalog No :</b>	YP1383
<b>Reactivity :</b>	Human;Mouse
<b>Applications :</b>	WB;ELISA;IHC
<b>Target :</b>	LATS1
<b>Fields :</b>	>>Hippo signaling pathway;>>Hippo signaling pathway - multiple species
<b>Gene Name :</b>	LATS1 WARTS
<b>Protein Name :</b>	LATS1 (Thr1079)
<b>Human Gene Id :</b>	9113
<b>Human Swiss Prot No :</b>	O95835
<b>Mouse Gene Id :</b>	16798
<b>Mouse Swiss Prot No :</b>	Q8BYR2
<b>Immunogen :</b>	Synthesized phosho peptide around human LATS1 (Thr1079)
<b>Specificity :</b>	This antibody detects endogenous levels of Human Mouse LATS1 (phospho-Thr1079)
<b>Formulation :</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source :</b>	Polyclonal, Rabbit,IgG
<b>Dilution :</b>	WB 1:500-2000;IHC 1:50-300; ELISA 2000-20000
<b>Purification :</b>	The antibody was affinity-purified from rabbit serum by affinity-chromatography using specific immunogen.
<b>Concentration :</b>	1 mg/ml

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**Storage Stability :** -15°C to -25°C/1 year (Do not lower than -25°C)

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**Observed Band :** 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 treatment.

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**Function :** 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.,

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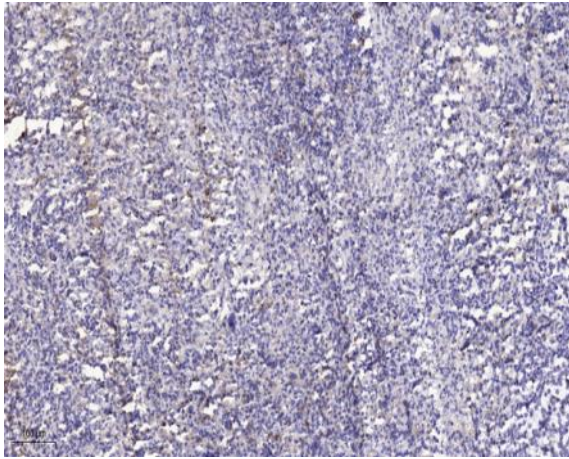
**Subcellular Location :** Cytoplasm, cytoskeleton, microtubule organizing center, centrosome . Cytoplasm, cytoskeleton, spindle . Midbody . Cytoplasm, cytoskeleton, microtubule organizing center, spindle pole body . Localizes to the centrosomes throughout interphase but migrates to the mitotic apparatus, including spindle pole bodies, mitotic spindle, and midbody, during mitosis. .

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**Expression :** Expressed in all adult tissues examined except for lung and kidney.

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## Products Images



Immunohistochemical analysis of paraffin-embedded human spleen. 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).