

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

<b>Catalog No :</b>	YP1047
<b>Reactivity :</b>	Human;Mouse
<b>Applications :</b>	IHC;IF;ELISA
<b>Target :</b>	LATS1/2
<b>Fields :</b>	>>Hippo signaling pathway;>>Hippo signaling pathway - multiple species
<b>Gene Name :</b>	LATS1/LATS2
<b>Protein Name :</b>	Serine/threonine-protein kinase LATS1/2
<b>Human Gene Id :</b>	9113/26524
<b>Human Swiss Prot No :</b>	O95835/Q9NRM7
<b>Mouse Gene Id :</b>	16798/50523
<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>Dilution :</b>	IHC 1:100 - 1:300. ELISA: 1:20000.. IF 1:50-200
<b>Purification :</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Concentration :</b>	1 mg/ml
<b>Storage Stability :</b>	-15°C to -25°C/1 year(Do not lower than -25°C)

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**Molecularweight :** 125kD

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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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**Sort :** 1049

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**No4 :** 1

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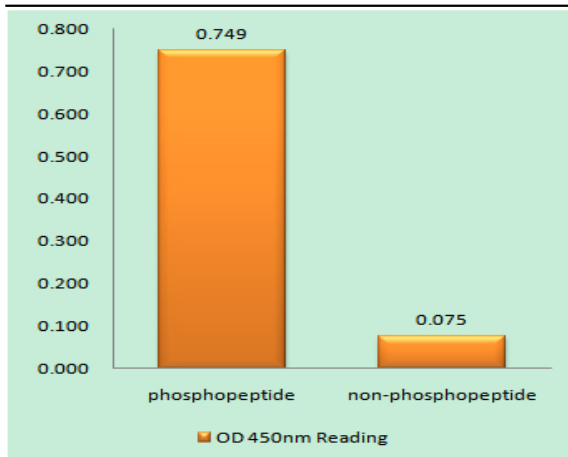
**Host :** Rabbit

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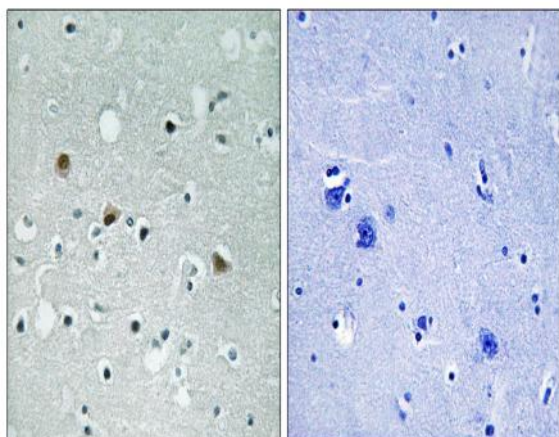
**Modifications :** Phospho

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**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 phospho peptide.