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Phospho-LATS1-S909+LATS2-S872 Rabbit mAb

Catalog No.: AP1621 Recombinant

Basic Information

Observed MW
140 kDa

Calculated MW
76 kDa/120 kDa/126 kDa

Category
Primary antibody

Applications
WB,IHC-P,ELISA

Cross-Reactivity
Human, Mouse

CloneNo number
ARC79587

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 treatments. This gene encodes a serine/threonine protein kinase belonging to the LATS tumor suppressor family. The protein localizes to centrosomes during interphase, and early and late metaphase. It interacts with the centrosomal proteins aurora-A and ajuba and is required for accumulation of gamma-tubulin and spindle formation at the onset of mitosis. It also interacts with a negative regulator of p53 and may function in a positive feedback loop with p53 that responds to cytoskeleton damage. Additionally, it can function as a co-repressor of androgen-responsive gene expression.

Recommended Dilutions

WB	1:3000 - 1:20000
IHC-P	1:300 - 1:1200
ELISA	Recommended starting concentration is 1 μg/mL. Please optimize the concentration based on your specific assay requirements. For high-ratio antibody dilutions (≥1:10000)，a sequential dilution method is strongly recommended to ensure measurement accuracy.

Immunogen Information

Gene ID
9113/26524

Swiss Prot
O95835/Q9NRM7

Immunogen
Synthetic peptide. This information is considered to be commercially sensitive.

Synonyms
LATS1; LATS2; WARTS; wts; KPM; phospho-LATS1-S909/LATS2-S872

Product Information

Source
Rabbit

Isotype
IgG

Purification
Affinity purification

Storage
Store at -20℃. Avoid freeze / thaw cycles.
Buffer: PBS with 0.09% Sodium azide,0.05% BSA,50% glycerol,pH7.3.

Contact

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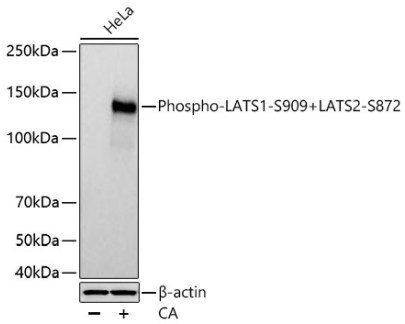
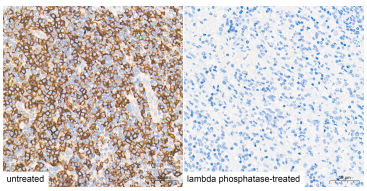
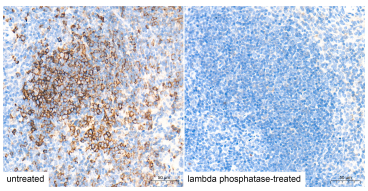
Validation Data



Western blot analysis of lysates from HeLa cells using Phospho-LATS1-S909+LATS2-S872 Rabbit mAb (AP1621) at 1:5000 dilution incubated overnight at 4℃. HeLa cells were treated with CA (100 ng/mL) at 37℃ for 30 minutes.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.
Lysates/proteins: 30 µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 5 s.



Immunohistochemistry analysis of paraffin-embedded Human tonsil tissue, untreated (left) and lambda phosphatase-treated (right), using Phospho-LATS1-S909+LATS2-S872 Rabbit mAb (AP1621) at a dilution of 1:500 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Mouse spleen tissue, untreated (left) and lambda phosphatase-treated (right), using Phospho-LATS1-S909+LATS2-S872 Rabbit mAb (AP1621) at a dilution of 1:500 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.