Anti-LATS1 / WARTS Antibody [PSH07-20]

HA722808

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Monkey
Applications:	WB
Molecular Wt:	Predicted band size: 127 kDa
Clone number:	PSH07-20

Description: Large tumor suppressor kinase 1 (LATS1) is an enzyme that in humans is encoded by the LATS1 gene. It has been associated with the Hippo signaling pathway, where it phosphorylates YAP and TAZ to inactivate their function. 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 histone H1 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.

Immunogen: Recombinant protein within human LATS1 aa 151-600.

Positive control: HT-29 cell lysate, K-562 cell lysate, SH-SY5Y cell lysate, HeLa cell lysate, C2C12 cell lysate, COS-1 cell lysate.

Subcellular location: Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, spindle, microtubule organizing center, spindle pole body.

Database links: SwissProt: O95835 Human | Q8BYR2 Mouse

Recommended Dilutions:

WB	1:1,000

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

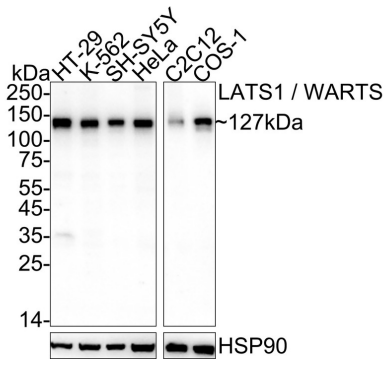

Fig1: Western blot analysis of LATS1 / WARTS on different lysates with Rabbit anti-LATS1 / WARTS antibody (HA722808) at 1/1,000 dilution.

Lane 1: HT-29 cell lysate
Lane 2: K-562 cell lysate
Lane 3: SH-SY5Y cell lysate
Lane 4: HeLa cell lysate
Lane 5: C2C12 cell lysate
Lane 6: COS-1 cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 127 kDa
Observed band size: 127 kDa

Exposure time: 59 seconds; ECL: K1802;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA722808) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

Background References

1. Xu Y et al. The N6-methyladenosine METTL3 regulates tumorigenesis and glycolysis by mediating m6A methylation of the tumor suppressor LATS1 in breast cancer. J Exp Clin Cancer Res. 2023 Jan
2. Qi S et al. WWC proteins mediate LATS1/2 activation by Hippo kinases and imply a tumor suppression strategy. Mol Cell. 2022 May