

LATS1 (N-18): sc-9388

BACKGROUND

The *Drosophila* tumor suppressor protein lats (for large tumor suppressor) is a putative protein kinase that shares homology with three proteins in *Neurospora* and budding yeast that are involved in cell cycle and growth regulation: *S. cerevisiae* Dbf2 and Dbf20, and *Neurospora* cot-1. Mosaic screens in *Drosophila* have identified the lats gene as a tumor suppressor in this species. The human homolog, designated LATS1, was shown to inhibit tumor growth in lats-deficient *Drosophila*. Human LATS1 binds to Cdc2 in early mitosis and appears to negatively regulate the kinase activity of Cdc2. LATS1-deficient mice are highly sensitive to carcinogenic treatments and develop soft-tissue sarcomas and ovarian stromal cell tumors, indicating a role for mammalian LATS1 in tumorigenesis.

CHROMOSOMAL LOCATIONS

Genetic locus: LATS1 (human) mapping to 6q25.1; Lats1 (mouse) mapping to 10 A1.

SOURCE

LATS1 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of LATS1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-9388 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

LATS1 (N-18) is recommended for detection of LATS1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

LATS1 (N-18) is also recommended for detection of LATS1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for LATS1 siRNA (h): sc-35797, LATS1 siRNA (m): sc-35798, LATS1 shRNA Plasmid (h): sc-35797-SH, LATS1 shRNA Plasmid (m): sc-35798-SH, LATS1 shRNA (h) Lentiviral Particles: sc-35797-V and LATS1 shRNA (m) Lentiviral Particles: sc-35798-V.

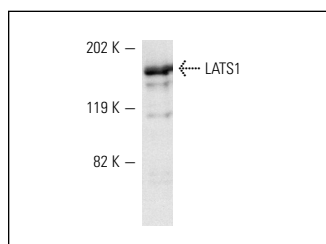
Molecular Weight of LATS1: 150 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210 or A-431 whole cell lysate: sc-2201.

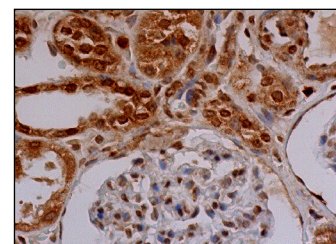
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



LATS1 (N-18): sc-9388. Western blot analysis of LATS1 expression in NIH/3T3 whole cell lysate.



LATS1 (N-18): sc-9388. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing nuclear staining of cells in glomeruli and nuclear and cytoplasmic staining of cells in tubules.

SELECT PRODUCT CITATIONS

- Oka, T., et al. 2008. Mst2 and LATS kinases regulate apoptotic function of Yes kinase-associated protein (YAP). *J. Biol. Chem.* 283: 27534-27546.
- Romano, D., et al. 2013. The differential effects of wild-type and mutated K-Ras on MST2 signaling are determined by K-Ras activation kinetics. *Mol. Cell. Biol.* 33: 1859-1868.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.


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Try **LATS1 (G-12): sc-398560**, our highly recommended monoclonal alternative to LATS1 (N-18).