SANTA CRUZ BIOTECHNOLOGY, INC.

LAPSER1 (B-5): sc-271958

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

LAPSER1, also called leucine zipper putative tumor suppressor 2, is a member of the LZTS family. Due to its deletion in multiple cancers, including prostate tumors, LAPSER1 is purported to be a tumor suppressor. In cancer cell lines, the overexpression of LAPSER1 can lead to growth inhibition and colony-forming efficiency. LAPSER1 is highly expressed in testis and prostate, but can be detected at lower levels in spleen, thymus, uterus, small intestine and colon. LAPSER1 co-localizes with γ Tubulin, MKLP-1 and p80 Katanin. LAPSER1 is involved in cytokinesis. The disruption of LAPSER1, which is accompanied by the mislocalization of p80 Katanin, results in malformation of the central spindle. This is a potential impetus for carcinogenesis.

REFERENCES

1. Cabeza-Arvelaiz, Y., Thompson, T.C., Sepulveda, J.L. and Chinault, A.C. 2001. LAPSER1: a novel candidate tumor suppressor gene from 10q24.3. Oncogene 20: 6707-6717.
2. Teufel, A., Weinmann, A., Galle, P.R. and Lohse, A.W. 2005. In silico characterization of LZTS3, a potential tumor suppressor. Oncol. Rep. 14: 547-551.
3. Thyssen, G., Li, T.H., Lehmann, L., Zhuo, M., Sharma, M. and Sun, Z. 2006. LZTS2 is a novel β-catenin-interacting protein and regulates the nuclear export of β-catenin. Mol. Cell. Biol. 26: 8857-8867.
4. Sudo, H. and Maru, Y. 2007. LAPSER1 is a putative cytokinetic tumor suppressor that shows the same centrosome and midbody subcellular localization pattern as p80 Katanin. FASEB J. 21: 2086-2100.
5. Iida, M., Anna, C.H., Gaskin, N.D., Walker, N.J. and Devereux, T.R. 2007. The putative tumor suppressor TSC-22 is downregulated early in chemically induced hepatocarcinogenesis and may be a suppressor of GADD 45β. Toxicol. Sci. 99: 43-50.

CHROMOSOMAL LOCATION

Genetic locus: LZTS2 (human) mapping to 10q24.31; Lzts2 (mouse) mapping to 19 C3.

SOURCE

LAPSER1 (B-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 311-347 within an internal region of LAPSER1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-271958 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

LAPSER1 (B-5) is recommended for detection of LAPSER1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

LAPSER1 (B-5) is also recommended for detection of LAPSER1 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for LAPSER1 siRNA (h): sc-62541, LAPSER1 siRNA (m): sc-62542, LAPSER1 shRNA Plasmid (h): sc-62541-SH, LAPSER1 shRNA Plasmid (m): sc-62542-SH, LAPSER1 shRNA (h) Lentiviral Particles: sc-62541-V and LAPSER1 shRNA (m) Lentiviral Particles: sc-62542-V.

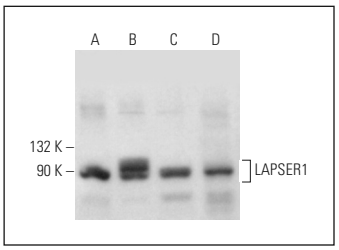
Molecular Weight of LAPSER1: 73 kDa.

Positive Controls: Neuro-2A whole cell lysate: sc-364185, F9 cell lysate: sc-2245 or SK-N-SH cell lysate: sc-2410.

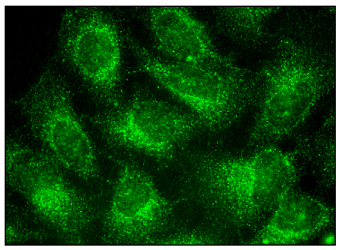
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



LAPSER1 (B-5): sc-271958. Western blot analysis of LAPSER1 expression in SK-N-SH (**A**), F9 (**B**), Neuro-2A (**C**) and C6 (**D**) whole cell lysates.



LAPSER1 (B-5): sc-271958. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

RESEARCH USE

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

PROTOCOLS

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