

# LAPSER1 (D-7): sc-514618

## 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 colocalizes with  $\gamma$ -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., et al. 2001. LAPSER1: a novel candidate tumor suppressor gene from 10q24.3. *Oncogene* 20: 6707-6717.
2. Teufel, A., et al. 2005. In silico characterization of LZTS3, a potential tumor suppressor. *Oncol. Rep.* 14: 547-551.
3. Thyssen, G., et al. 2006. LZTS2 is a novel  $\beta$ -catenin-interacting protein and regulates the nuclear export of  $\beta$ -catenin. *Mol. Cell. Biol.* 26: 8857-8867.

## CHROMOSOMAL LOCATION

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

## SOURCE

LAPSER1 (D-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 166-185 within an internal region of LAPSER1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

LAPSER1 (D-7) is available conjugated to agarose (sc-514618 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514618 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514618 PE), fluorescein (sc-514618 FITC), Alexa Fluor® 488 (sc-514618 AF488), Alexa Fluor® 546 (sc-514618 AF546), Alexa Fluor® 594 (sc-514618 AF594) or Alexa Fluor® 647 (sc-514618 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514618 AF680) or Alexa Fluor® 790 (sc-514618 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514618 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## STORAGE

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

## APPLICATIONS

LAPSER1 (D-7) 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  $\mu$ g per 100-500  $\mu$ g 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).

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.

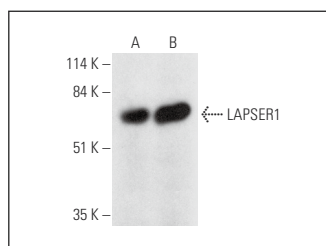
Molecular Weight of LAPSER1: 73 kDa.

Positive Controls: LAPSER1 (h): 293T Lysate: sc-116591, human kidney extract: sc-363764 or human spleen extract: sc-363779.

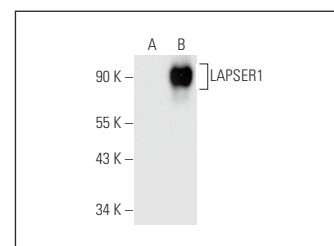
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  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 (D-7): sc-514618. Western blot analysis of LAPSER1 expression in human spleen (A) and human kidney (B) tissue extracts.



LAPSER1 (D-7): sc-514618. Western blot analysis of LAPSER1 expression in non-transfected: sc-117752 (A) and human LAPSER1 transfected: sc-116591 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Zhang, J., et al. 2022. Long non-coding RNA linc00921 suppresses tumorigenesis and epithelial-to-mesenchymal transition of triple-negative breast cancer via targeting miR-9-5p/LZTS2 axis. *Hum. Cell* 35: 909-923.

## RESEARCH USE

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