SANTA CRUZ BIOTECHNOLOGY, INC.

LARP7 (K-17): sc-243235

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The Power to Question

BACKGROUND

LARP7 (La ribonucleoprotein domain family, member 7), also known as PIP7S or HDCMA18P, is a 582 amino acid protein that localizes to the nucleoplasm and contains one RRM domain and one HTH La-type RNA-binding domain. Expressed as two alternatively spliced isoforms, LARP7 functions as an integral part of the 7SK RNP complex and binds to the highly conserved 3'-terminal U-rich stretch of 7SK RNA, effectively sequestering positive elongation factors and repressing transcription of Pol II genes. Via its ability to control transcription and elongation, LARP7 is thought to be involved in cell growth and tumorigenesis. LARP7 is subject to DNA damage-dependent phosphorylation, probably by ATM or ATR.

REFERENCES

1. Markert, A., Grimm, M., Martinez, J., Wiesner, J., Meyerhans, A., Meyuhas, O., Sickmann, A. and Fischer, U. 2008. The La-related protein LARP7 is a component of the 7SK ribonucleoprotein and affects transcription of cellular and viral polymerase II genes. EMBO Rep. 9: 569-575.
2. Biewenga, P., Buist, M.R., Moerland, P.D., Ver Loren van Themaat, E., van Kampen, A.H., ten Kate, F.J. and Baas, F. 2008. Gene expression in early stage cervical cancer. Gynecol. Oncol. 108: 520-526.
3. He, N., Jahchan, N.S., Hong, E., Li, Q., Bayfield, M.A., Maraia, R.J., Luo, K. and Zhou, Q. 2008. A La-related protein modulates 7SK snRNP integrity to suppress P-TEFb-dependent transcriptional elongation and tumorigenesis. Mol. Cell 29: 588-599.
4. Online Mendelian Inheritance in Man, OMIM™. 2008 Johns Hopkins University, Baltimore, MD. MIM Number: 612026. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
5. Diribarne, G. and Bensaude, O. 2009. 7SK RNA, a non-coding RNA regulating P-TEFb, a general transcription factor. RNA Biol. 6:122-128.

CHROMOSOMAL LOCATION

Genetic locus: LARP7 (human) mapping to 4q25.

SOURCE

LARP7 (K-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of LARP7 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-243235 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.

RESEARCH USE

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

APPLICATIONS

LARP7 (K-17) is recommended for detection of LARP7 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other LARP family members.

Suitable for use as control antibody for LARP7 siRNA (h): sc-89099, LARP7 shRNA Plasmid (h): sc-89099-SH and LARP7 shRNA (h) Lentiviral Particles: sc-89099-V.

Molecular Weight of LARP7: 67 kDa.

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) 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.

PROTOCOLS

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