

LSm1 (FL-133): sc-67365

BACKGROUND

Sm and Sm-like (LSm) proteins form donut-shaped heptameric complexes that are involved in various steps of RNA metabolism. LSm proteins facilitate RNA protein interactions and structural changes that are required during ribosomal subunit assembly. LSm1, also designated U6 snRNA-associated Sm-like protein or small nuclear ribonuclear CaSm, binds specifically to the 3'-terminal U-tract of U6 snRNA. Human LSm1 localizes to the cytoplasm in small, discrete foci. These foci are also the localization site for the mRNA decapping enzyme Dcp1/2 and the exonuclease Xrn1. LSm1 is naturally overexpressed in pancreatic cancer as well as in certain breast cancer cell lines. The downregulation of LSm1 is involved in the progression of prostate cancer.

REFERENCES

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2. Takahashi, S., Suzuki, S., Inaguma, S., Cho, Y.M., Ikeda, Y., Hayashi, N., Inoue, T., Sugimura, Y., Nishiyama, N., Fujita, T., Ushijima, T. and Shirai, T. 2002. Downregulation of LSm1 is involved in human prostate cancer progression. *Br. J. Cancer* 86: 940-946.
3. Noueir, A.O., Diez, J., Falk, S.P., Chen, J. and Ahlquist, P. 2003. Yeast LSm1p-7p/Pat1p deadenylation-dependent mRNA-decapping factors are required for brome mosaic virus genomic RNA translation. *Mol. Cell. Biol.* 23: 4094-4106.
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CHROMOSOMAL LOCATION

Genetic locus: LSM1 (human) mapping to 8p11.23; Lsm1 (mouse) mapping to 8 A2.

SOURCE

LSm1 (FL-133) is a rabbit polyclonal antibody raised against amino acids 1-133 representing full length LSm1 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.

STORAGE

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

APPLICATIONS

LSm1 (FL-133) is recommended for detection of LSm1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

LSm1 (FL-133) is also recommended for detection of LSm1 in additional species, including equine, canine and bovine.

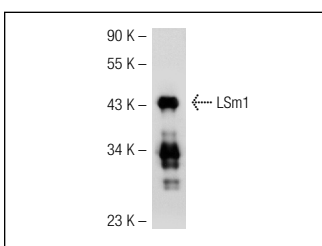
Suitable for use as control antibody for LSm1 siRNA (h): sc-72335, LSm1 siRNA (m): sc-72336, LSm1 shRNA Plasmid (h): sc-72335-SH, LSm1 shRNA Plasmid (m): sc-72336-SH, LSm1 shRNA (h) Lentiviral Particles: sc-72335-V and LSm1 shRNA (m) Lentiviral Particles: sc-72336-V.

Molecular Weight of LSm1: 15 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



LSm1 (FL-133): sc-67365. Western blot analysis of human recombinant LSm1 fusion protein.

RESEARCH USE

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

MONOS
Satisfaction
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Try **LSm1 (A-9): sc-373685** or **LSm1 (A-4): sc-398623**, our highly recommended monoclonal alternatives to LSm1 (FL-133).