

LSm8 (2527C6a): sc-81315

BACKGROUND

Sm and Sm-like (LSm) proteins form donut-shaped heptameric complexes that are involved in various steps of RNA metabolism. LSm proteins are ubiquitously expressed and facilitate RNA-protein interactions and structural changes that are required during ribosomal subunit assembly. LSm8, also known as YJR022W, is a member of the snRNP Sm proteins family. It is a component of the LSm2-8 complex which plays a role in the processing of pre-snoRNAs, pre-tRNAs and pre-rRNAs, as well as the turnover of pre-mRNAs. The LSm2-8 complex is also essential for the nuclear localization of the U6 snRNA. LSm8 localizes to the nucleus and specifically binds the U6 snRNA 3'-terminal U-tract.

REFERENCES

1. Pannone, B.K., et al. 1999. A role for the yeast La protein in U6 snRNP assembly: evidence that the La protein is a molecular chaperone for RNA polymerase III transcripts. *EMBO J.* 17: 7442-7453.
2. Pannone, B.K., et al. 2001. Multiple functional interactions between components of the LSm2-LSm8 complex, U6 snRNA, and the yeast La protein. *Genetics* 158: 187-196.
3. Tomasevic, N. and Peculis, B.A. 2002. *Xenopus* LSm proteins bind U8 snoRNA via an internal evolutionarily conserved octamer sequence. *Mol. Cell. Biol.* 22: 4101-4112.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607288. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Ingelfinger, D., et al. 2003. The human LSm1-7 proteins colocalize with the mRNA-degrading enzymes Dcp1/2 and Xrnl in distinct cytoplasmic foci. *RNA* 8: 1489-1501.
6. Kufel, J., et al. 2003. LSm proteins are required for normal processing and stability of ribosomal RNAs. *J. Biol. Chem.* 278: 2147-2156.
7. Kufel, J., et al. 2004. Nuclear pre-mRNA decapping and 5' degradation in yeast require the LSm2-8p complex. *Mol. Cell. Biol.* 24: 9646-9657.
8. Fernandez, C.F., et al. 2004. An LSm2-LSm7 complex in *Saccharomyces cerevisiae* associates with the small nucleolar RNA snR5. *Mol. Biol. Cell* 15: 2842-2852.
9. Spiller, M.P., et al. 2007. The LSm2-8 complex determines nuclear localization of the spliceosomal U6 snRNA. *Nucleic Acids Res.* 35: 923-929.

CHROMOSOMAL LOCATION

Genetic locus: LSM8 (human) mapping to 7q31.31.

SOURCE

LSm8 (2527C6a) is a mouse monoclonal antibody raised against a recombinant protein corresponding to the C-terminal region of LSm8 of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 1.0% stabilizer protein.

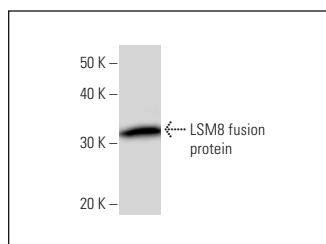
APPLICATIONS

LSm8 (2527C6a) is recommended for detection of LSm8 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for LSm8 siRNA (h): sc-75715, LSm8 shRNA Plasmid (h): sc-75715-SH and LSm8 shRNA (h) Lentiviral Particles: sc-75715-V.

Molecular Weight of LSm8: 10 kDa.

DATA



LSM8 (2527C6a): sc-81315. Western Blot analysis of human recombinant LSM8 fusion protein.

SELECT PRODUCT CITATIONS

1. Novotny, I., et al. 2012. Nuclear LSm8 affects number of cytoplasmic processing bodies via controlling cellular distribution of Like-Sm proteins. *Mol. Biol. Cell* 23: 3776-3785.
2. Novotný, I., et al. 2015. SART3-dependent accumulation of incomplete spliceosomal snRNPs in Cajal bodies. *Cell Rep.* 10: 429-440.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

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.