

Sm B/B'/N (h2): 293T Lysate: sc-159618

BACKGROUND

mRNA precursors are processed in the spliceosome, where introns are excised to form continuous coding sequences. The major components of the spliceosome are RNA-protein complexes called snRNPs (small nuclear ribonucleoprotein particles). The core proteins that are common to all snRNPs are called the Sm proteins, and are designated B, B', D1, D2, D3, E, F and G. Antibodies recognizing Sm proteins are frequently generated in autoimmune diseases, including in patients with systemic lupus erythematosus. Sm proteins are characterized by a conserved Sm sequence motif in two parts, Sm1 and Sm2, which are separated by a variable region.

REFERENCES

1. Lerner, M.R. and Steitz, J.A. 1979. Antibodies to small nuclear RNAs complexed with proteins are produced by patients with systemic lupus erythematosus. *Proc. Natl. Acad. Sci. USA* 76: 5495-5499.
2. Steitz, J.A., et al. 1988. Functions of the abundant U-snRNPs. In Birnstall, M.L., ed., *Small Nuclear Ribonucleoprotein Particles: Structure and Function of Major and Minor Small Nuclear Ribonucleoprotein Particles*. New York: Springer-Verlag. 115-154.
3. Luhrmann, R., Kastner, B. and Bach, M. 1990. Structure of spliceosomal snRNPs and their role in pre-mRNA splicing. *Biochim. Biophys. Acta* 1087: 265-292.
4. Hermann, H., Fabrizio, P., Raker, V.A., Foulaki, K., Hornig, H., Brahms, H. and Luhrmann, R. 1995. snRNP Sm proteins share two evolutionarily conserved sequence motifs which are involved in Sm protein-protein interactions. *EMBO J.* 14: 2076-2088.
5. Seraphin, B. 1995. Sm and Sm-like proteins belong to a large family: identification of proteins of the U6 as well as the U1, U2, U4 and U5 snRNPs. *EMBO J.* 14: 2089-2098.

CHROMOSOMAL LOCATION

Genetic locus: SNRPB (human) mapping to 20p13, SNRPN (human) mapping to 15q11.2.

PRODUCT

Sm B/B'/N (h2): 293T Lysate represents a lysate of human Sm B/B'/N transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Sm B/B'/N (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive Sm B/B'/N antibodies. Recommended use: 10-20 µl per lane.

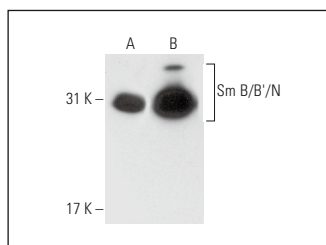
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Sm B/B'/N (12F5): sc-130670 is recommended as a positive control antibody for Western Blot analysis of enhanced human Sm B/B'/N expression in Sm B/B'/N transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



Sm B/B'/N (12F5): sc-130670. Western blot analysis of Sm B/B'/N expression in non-transfected: sc-117752 (A) and human Sm B/B'/N transfected: sc-159618 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

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.