

SNRPA (m): 293T Lysate: sc-127563

BACKGROUND

SNRPA (small nuclear ribonucleoprotein polypeptide A), also known as U1A (U1 snRNP protein A), is a component of the RNA spliceosome, a complex of proteins that are required for the precise excision of introns from pre-messenger RNA (pre-mRNA). Localizing to the nucleus, SNRPA contains two RRM (RNA recognition motif) domains, namely RRM1 and RRM2, and RRM1 specifically associates with the stem loop II of U1 snRNA (small nuclear RNA). In addition to functioning as a component of the U1 snRNP, SNRPA negatively regulates polyadenylation of SNRPA pre-mRNA, thereby negatively regulating itself. By inhibiting the addition of a polyA tail that would allow the pre-mRNA to mature, SNRPA causes the nuclear exosome degradation of the SNRPA pre-mRNA. At least 16% of cellular SNRPA also functions in an snRNP-free form (SF-A) that complexes with a group of non-snRNP proteins.

REFERENCES

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- Tang, J. et al. 1996. Characterization of yeast U1 snRNP A protein: identification of the N-terminal RNA binding domain (RBD) binding site and evidence that the C-terminal RBD functions in splicing. *RNA* 2: 1058-1070.
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- Ma, J., et al. 2006. Non-snRNP U1A levels decrease during mammalian B cell differentiation and release the IgM secretory poly(A) site from repression. *RNA* 12: 122-132.
- Benitex, Y., et al. 2007. Recognition of essential purines by the U1A protein. *BMC Biochem.* 8: 22.

CHROMOSOMAL LOCATION

Genetic locus: *Snrpa* (mouse) mapping to 7 A3.

PRODUCT

SNRPA (m): 293T Lysate represents a lysate of mouse SNRPA transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

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.

APPLICATIONS

SNRPA (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive SNRPA antibodies. Recommended use: 10-20 µl per lane.

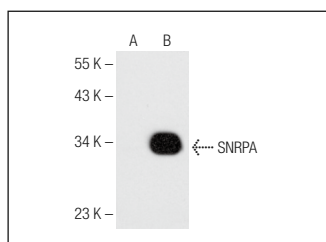
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

SNRPA (B-12): sc-376027 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse SNRPA expression in SNRPA 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



SNRPA (B-12): sc-376027. Western blot analysis of SNRPA expression in non-transfected: sc-117752 (A) and mouse SNRPA transfected: sc-127563 (B) 293T whole cell lysates.

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.