



PRP6 (m): 293T Lysate: sc-127391

BACKGROUND

Assembly of pre-mRNA spliceosomes requires the interaction between snRNPs U4/U6 and U5 to form the [U4/U6.U5] tri-snRNP. In yeast, the small nuclear ribonucleoprotein-associating protein, Prp6p is necessary for the accumulation of the [U4/U6.U5] tri-snRNP. Yeast Prp6p is uniquely located in discrete subnuclear regions, similar to the subnuclear localization of mammalian splicing components. Isolated from HeLa nuclear extract, mammalian PRP6 shares conserved tetrapeptide repeats with yeast Prp6p, making PRP6 the mammalian homolog of yeast Prp6p. In contrast to yeast Prp6p, which is specific for U4/U6, the human PRP6 interacts within the tri-snRNP with both the U5 and the U4/U6 snRNPs via protein-protein interactions, thus providing a bridge that connects the two snRNP particles.

REFERENCES

1. Abovich, N., et al. 1990. The yeast PRP6 gene encodes a U4/U6 small nuclear ribonucleoprotein particle (snRNP), and the PRP9 gene encodes a protein required for U2 snRNP binding. *Mol. Cell. Biol.* 10: 6417-6425.
2. Blanton, S., et al. 1992. PRP38 encodes a yeast protein required for pre-mRNA splicing and maintenance of stable U6 small nuclear RNA levels. *Mol. Cell. Biol.* 12: 3939-3947.
3. Elliott, D.J., et al. 1992. A yeast splicing factor is localized in discrete subnuclear domains. *EMBO J.* 11: 3731-3736.
4. Galisson, F., et al. 1993. The biochemical defects of prp4-1 and prp6-1 yeast splicing mutants reveal that the PRP6 protein is required for the accumulation of the [U4/U6.U5] tri-snRNP. *Nucleic Acids Res.* 21: 1555-1562.
5. Makarov, E.M., et al. 2000. The human homologue of the yeast splicing factor Prp6p contains multiple TPR elements and is stably associated with the U5 snRNP via protein-protein interactions. *J. Mol. Biol.* 298: 567-575.

CHROMOSOMAL LOCATION

Genetic locus: Prpf6 (mouse) mapping to 2 H4.

PRODUCT

PRP6 (m): 293T Lysate represents a lysate of mouse PRP6 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

PRP6 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive PRP6 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.

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.