



RBM28 (m3): 293T Lysate: sc-123006

BACKGROUND

The RBM (RNA-binding motif) gene family encodes proteins with an RNA binding motif. RBM28 (RNA-binding motif protein 28) is a 759 amino acid protein that is suggested to be involved in ribosomal biogenesis. Localized to the nucleolus, the four RNA recognition motif (RRM) domain-containing RBM28 has been identified to interact with spliceosomal small nuclear RNAs (snRNAs). Mutations in the RRM3 domain of yeast NOP4 (a homolog of RBM28) lead to ribosomal depletion due to defective assembly of the 60S subunit, suggesting a functional role of RBM28 in the production of ribosomal machinery. A homozygous missense mutation in RBM28 is the cause of alopecia, neurological defects and endocrinopathy (ANE) syndrome, in which affected individuals suffer hair loss, severe mental retardation and central hypogonadotropic hypogonadism. The afflictions of this disease suggest that RBM28 is required for normal development of the hair follicle, the hypothalamic-hypophyseal axis and the nervous system.

REFERENCES

1. Sun, C. and Woolford, J.L. 1997. The yeast nucleolar protein Nop4p contains four RNA recognition motifs necessary for ribosome biogenesis. *J. Biol. Chem.* 272: 25345-25352.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 612074. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Sutherland, L.C., Rintala-Maki, N.D., White, R.D. and Morin, C.D. 2005. RNA binding motif (RBM) proteins: a novel family of apoptosis modulators? *J. Cell. Biochem.* 94: 5-24.
4. Damianov, A., Kann, M., Lane, W.S. and Bindereif, A. 2006. Human RBM28 protein is a specific nucleolar component of the spliceosomal snRNPs. *Biol. Chem.* 387: 1455-1460.
5. Nousbeck, J., Spiegel, R., Ishida-Yamamoto, A., Indelman, M., Shani-Adir, A., Adir, N., Lipkin, E., Bercovici, S., Geiger, D., van Steensel, M.A., Steijlen, P.M., Bergman, R., Bindereif, A., Choder, M., Shalev, S. and Sprecher, E. 2008. Alopecia, neurological defects, and endocrinopathy syndrome caused by decreased expression of RBM28, a nucleolar protein associated with ribosome biogenesis. *Am. J. Hum. Genet.* 82: 1114-1121.

CHROMOSOMAL LOCATION

Genetic locus: Rbm28 (mouse) mapping to 6 A3.3.

PRODUCT

RBM28 (m3): 293T Lysate represents a lysate of mouse RBM28 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

RBM28 (m3): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive RBM28 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.