SANTA CRUZ BIOTECHNOLOGY, INC.

RBMX (G-17): sc-14581

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Heterogeneous nuclear ribonucleoproteins (hnRNPs) constitute a set of polypeptides that contribute to mRNA transcription, pre-mRNA processing as well as mature mRNA transport to the cytoplasm and translation. They also bind heterogeneous nuclear RNA (hnRNA), which are the transcripts produced by RNA polymerase II. There are approximately 20 known hnRNP proteins, and their complexes are the major constituents of the spliceosome. The majority of hnRNP proteins components are localized to the nucleus; however some shuttle between the nucleus and the cytoplasm. RBMX (also known as hnRNP G) is a glycoprotein originally identified as an autoantigen from German shepherd dogs with lupus-like syndrome. The gene encoding RBMX is located on chromosome Xq26.3 and is ubiquitously expressed. It contains one RNP-consensus RNA binding domain (RBD) and is related to RBMY, which is involved in spermatogenesis, and RBMXL2, which is a testis specific protein. All three proteins interact with Tra2b, and therefore are involved in pre-mRNA splicing.

REFERENCES

1. Soulard, M., et al. 1993. hnRNP G: sequence and characterization of a glycosylated RNA-binding protein. Nucleic Acids Res. 21: 4210-4217.
2. Badolato, J., et al. 1995. Identification and characterisation of a novel human RNA-binding protein. Gene 166: 323-337.
3. Siomi, H. et al. 1995. A nuclear localization domain in the hnRNP A1 protein. J. Cell Biol. 129: 551-560.
4. Soulard, M., et al. 1996. The I protein of the heterogeneous nuclear ribonucleoprotein complex is a novel dog nuclear autoantigen. J. Autoimmun. 9: 599-608.

CHROMOSOMAL LOCATION

Genetic locus: RBMX (human) mapping to Xq26.3; Rbmx (mouse) mapping to X A5, Rbmxl1 (mouse) mapping to 8 C1.

SOURCE

RBMX (G-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RBMX of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-14581 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

RBMX (G-17) is recommended for detection of RBMX of mouse, rat and human origin, and RBMXRT of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

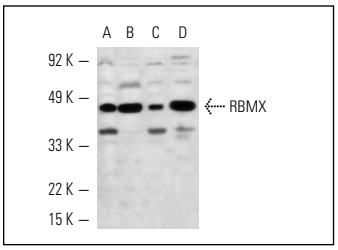
RBMX (G-17) is also recommended for detection of RBMX in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for RBMX siRNA (h): sc-38274, RBMX shRNA Plasmid (h): sc-38274-SH and RBMX shRNA (h) Lentiviral Particles: sc-38274-V.

Molecular Weight of RBMX: 43 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132, K-562 nuclear extract: sc-2130 or HeLa nuclear extract: sc-2120.

DATA



RBMX (G-17): sc-14581. Western blot analysis of RBMX expression in HeLa (**A**), Jurkat (**B**), UV-treated HeLa (**C**) and K-562 (**D**) nuclear extracts.

SELECT PRODUCT CITATIONS

1. Cristea, I.M., et al. 2006. Tracking and elucidating αvirus-host protein interactions. J. Biol. Chem. 281: 30269-30278.
2. Ulke-Lemée, A., et al. 2007. The nuclear PP1 interacting protein ZAP3 (ZAP) is a putative nucleoside kinase that complexes with SAM68, CIA, NF110/45, and HNRNP-G. Biochim. Biophys. Acta 1774: 1339-1350.
3. Omura, Y., et al. 2009. SAFB1, an RBMX-binding protein, is a newly identified regulator of hepatic SREBP-1c gene. BMB Rep. 42: 232-237.

RESEARCH USE

For research use only, not for use in diagnostic procedures.