

RBM23 (E-13): sc-165344

BACKGROUND

Proteins containing RNA recognition motifs, including various hnRNP proteins, are implicated in the regulation of alternative splicing and protein components of snRNPs. The RBM (RNA-binding motif) gene family encodes proteins with an RNA binding motif that have been suggested to play a role in the modulation of apoptosis. RBM23 (RNA-binding motif protein 23), also known as RNPC4 (RNA-binding region-containing protein 4), is a 439 amino acid member of the splicing factor SR family that contains 2 RRM (RNA recognition motif) domains and localizes to nucleus. The RBM23 protein interacts with some steroid nuclear receptors, localizes to the promoter of a steroid-responsive gene and increases transcription of steroid-responsive transcriptional reporters in a hormone-dependent manner. Existing as five alternatively spliced isoforms, the RBM23 gene is conserved in chimpanzee, canine and bovine, and maps to human chromosome 14q11.2.

REFERENCES

1. Maruyama, K., et al. 1994. Oligo-capping: a simple method to replace the cap structure of eukaryotic mRNAs with oligoribonucleotides. *Gene* 138: 171-174.
2. Varani, G., et al. 1998. RNA recognition by RNP proteins during RNA processing. *Annu. Rev. Biophys. Biomol. Struct.* 27: 407-445.
3. Heilig, R., et al. 2003. The DNA sequence and analysis of human chromosome 14. *Nature* 421: 601-607.
4. Maris, C., et al. 2005. The RNA recognition motif, a plastic RNA-binding platform to regulate post-transcriptional gene expression. *FEBS J.* 272: 2118-2131.
5. Sutherland, L.C., et al. 2005. RNA binding motif (RBM) proteins: a novel family of apoptosis modulators? *J. Cell. Biochem.* 94: 5-24.
6. Dowhan, D.H., et al. 2005. Steroid hormone receptor coactivation and alternative RNA splicing by U2AF65-related proteins CAPER α and CAPER β . *Mol. Cell* 17: 429-439.
7. Fukuda, T., et al. 2009. hnRNP K interacts with RNA binding motif protein 42 and functions in the maintenance of cellular ATP level during stress conditions. *Genes Cells* 14: 113-128.

CHROMOSOMAL LOCATION

Genetic locus: RBM23 (human) mapping to 14q11.2.

SOURCE

RBM23 (E-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RBM23 of human origin.

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.

PRODUCT

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

Blocking peptide available for competition studies, sc-165344 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

RBM23 (E-13) is recommended for detection of RBM23 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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); non cross-reactive with other RBM family members.

Suitable for use as control antibody for RBM23 siRNA (h): sc-92324, RBM23 shRNA Plasmid (h): sc-92324-SH and RBM23 shRNA (h) Lentiviral Particles: sc-92324-V.

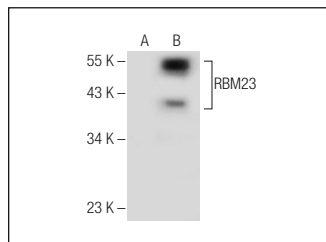
Molecular Weight of RBM23 isoforms 1-5: 49/47/37/44/45 kDa.

Positive Controls: RBM23 (h): 293T Lysate: sc-371107 or SH-SY5Y nuclear extract: sc-364820.

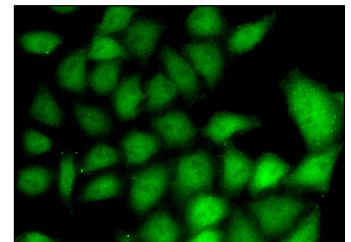
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



RBM23 (E-13): sc-165344. Western blot analysis of RBM23 expression in non-transfected: sc-117752 (A) and human RBM23 transfected: sc-371107 (B) 293T whole cell lysates.



RBM23 (E-13): sc-165344. Immunofluorescence staining of formalin-fixed HeLa cells showing nuclear localization. Kindly provided by Yang Xiang, Ph.D., Division of Newborn Medicine, Boston Children's Hospital, Cell Biology Department, Harvard Medical School.

RESEARCH USE

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