

RBM22 (B-19): sc-102074

BACKGROUND

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. RBM22, also designated Zinc finger CCCH domain-containing protein 16, is a highly conserved RNA binding protein that is predominantly expressed in spleen and is localized to the nucleus. With a RRM (RNA recognition motif domain) and a C₃H₁-type zinc finger, RBM22 is primarily involved in pre-mRNA splicing. In the presence of RBM22, cytosolic ALG-2 (apoptosis linked gene 2) translocates to the nucleus, suggesting a functional interaction between the two proteins. Homologs of RBM22 are essential proteins in the regulation of alternative splicing in the cell cycle, zebrafish development and *Drosophila* heart development. The gene encoding RBM22 is significantly downregulated in patients with the 5q deletion syndrome, a clonal disease of the hematopoietic stem cell in which characteristic changes in megakaryocytes result in treatment-resistant anemia and myelodysplastic syndromes that may eventually lead to acute myelogenous leukemia.

REFERENCES

1. Kittler, R., et al. 2004. An endoribonuclease-prepared siRNA screen in human cells identifies genes essential for cell division. *Nature* 432: 1036-1040.
2. Kim, Y.O., et al. 2004. A functional genomic screen for cardiogenic genes using RNA interference in developing *Drosophila* embryos. *Proc. Natl. Acad. Sci. USA* 101: 159-164.
3. Sutherland, L.C., et al. 2005. RNA binding motif (RBM) proteins: a novel family of apoptosis modulators? *J. Cell. Biochem.* 94: 5-24.
4. Montaville, P., et al. 2006. Nuclear translocation of the calcium-binding protein ALG-2 induced by the RNA-binding protein RBM22. *Biochim. Biophys. Acta* 1763: 1335-1343.
5. Boultonwood, J., et al. 2007. Gene expression profiling of CD34⁺ cells in patients with the 5q- syndrome. *Br. J. Haematol.* 139: 578-589.

CHROMOSOMAL LOCATION

Genetic locus: RBM22 (human) mapping to 5q33.1; Rbm22 (mouse) mapping to 18 D2.

SOURCE

RBM22 (B-19) is a purified rabbit polyclonal antibody raised against RBM22 of human origin.

PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

STORAGE

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

RESEARCH USE

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

APPLICATIONS

RBM22 (B-19) is recommended for detection of RBM22 of mouse, rat, human and dog 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for RBM22 siRNA (h): sc-91911, RBM22 siRNA (m): sc-152734, RBM22 shRNA Plasmid (h): sc-91911-SH, RBM22 shRNA Plasmid (m): sc-152734-SH, RBM22 shRNA (h) Lentiviral Particles: sc-91911-V and RBM22 shRNA (m) Lentiviral Particles: sc-152734-V.

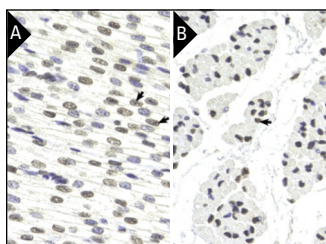
Molecular Weight of RBM22: 47 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

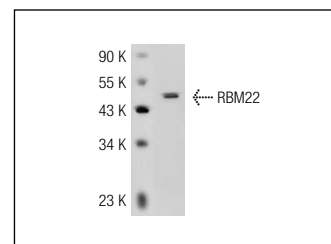
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



RBM22 (B-19): sc-102074. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart (A) and human muscle (B) tissue showing nuclear staining.



RBM22 (B-19): sc-102074. Western blot analysis of RBM22 expression in Jurkat whole cell lysate.

PROTOCOLS

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