

RBM9 (N-14): sc-86812

BACKGROUND

RBM9 (RNA binding motif protein 9), also known as RTA, fxb, FOX2, Fox-2, HNRBP2 or HRNBP2, is a 390 amino acid protein that contains one RRM (RNA recognition motif) domain. RBM9 is thought to be a key regulator of alternative exon splicing in the nervous system and other cell types. RBM9 regulates the splicing activity of the highly conserved RNA 5'-UGCAUGU-3' element, an intron splicing enhancer that is often located adjacent to tissue-specific alternative exons. RBM9 prevents binding of U2AF65 (U2 snRNP auxiliary factor large subunit) to the 3' splice site of the RNA splicing element which affects alternative splicing of tissue-specific exons. RBM9 also interacts with the ER α (estrogen receptor α) transcription factor and regulates ER α transcriptional activity. Eight isoforms of RBM9 exist due to alternative splicing events.

REFERENCES

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- Ponthier, J.L., Schlupe, C., Chen, W., Lersch, R.A., Gee, S.L., Hou, V.C., Lo, A.J., Short, S.A., Chasis, J.A., Winkelmann, J.C. and Conboy, J.G. 2006. Fox-2 splicing factor binds to a conserved intron motif to promote inclusion of protein 4.1R alternative exon 16. *J. Biol. Chem.* 281: 12468-12474.
- Zhou, H.L., Baraniak, A.P. and Lou, H. 2007. Role for Fox-1/Fox-2 in mediating the neuronal pathway of calcitonin/calcitonin gene-related peptide alternative RNA processing. *Mol. Cell. Biol.* 27: 830-841.

CHROMOSOMAL LOCATION

Genetic locus: RBM9 (human) mapping to 22q12.3; Rbm9 (mouse) mapping to 15 D3.

SOURCE

RBM9 (N-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of RBM9 of human origin.

PRODUCT

Each vial contains 100 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-86812 P, (100 μ g 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.

APPLICATIONS

RBM9 (N-14) is recommended for detection of RBM9 of mouse, rat and 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.

RBM9 (N-14) is also recommended for detection of RBM9 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for RBM9 siRNA (h): sc-76371, RBM9 siRNA (m): sc-152756, RBM9 shRNA Plasmid (h): sc-76371-SH, RBM9 shRNA Plasmid (m): sc-152756-SH, RBM9 shRNA (h) Lentiviral Particles: sc-76371-V and RBM9 shRNA (m) Lentiviral Particles: sc-152756-V.

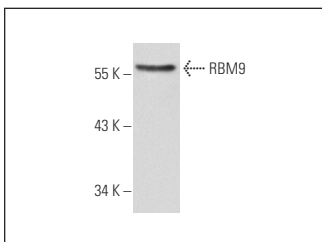
Molecular Weight of RBM9 isoforms 1-10: 38-47 kDa.

Positive Controls: mouse brain extract: sc-225, NIH/3T3 whole cell lysate: sc-2210 or Hep G2 cell lysate: sc-2227.

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.

DATA



RBM9 (N-14): sc-86812. Western blot analysis of RBM9 expression in mouse brain tissue extract.

RESEARCH USE

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

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Try **RBM9 (F-8): sc-271407** or **RBM9 (D-10): sc-365386**, our highly recommended monoclonal alternatives to RBM9 (N-14).