SANTA CRUZ BIOTECHNOLOGY, INC.

RBM12 (E-6): sc-514259

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The Power to Question

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. RBM12 (RNA binding motif protein 12), also known as SWAN, HRIHFB2091 or KIAA0765, is a 932 amino acid protein which localizes to the nucleus. RBM12 contains multiple proline-rich regions, transmembrane domains and three RNA recognition motifs (RRM). It has been found that the genes for RBM12 and copine I (CPNE1) overlap at human chromosome location 20q11.22, sharing the promoter region and a 5'UTR (which are conserved in human, zebrafish and mouse), suggesting that a functional interaction between the two genes may exist.

REFERENCES

1. Nagase, T., et al. 1998. Prediction of the coding sequences of unidentified human genes. XI. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 5: 277-286.
2. Stover, C., et al. 2001. cDNA cloning, chromosome assignment, and genomic structure of a human gene encoding a novel member of the RBM family. Cytogenet. Cell Genet. 92: 225-230.

CHROMOSOMAL LOCATION

Genetic locus: RBM12 (human) mapping to 20q11.22; Rbm12 (mouse) mapping to 2 H1.

SOURCE

RBM12 (E-6) is a mouse monoclonal antibody raised against amino acids 422-530 mapping within an internal region of RBM12 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

RBM12 (E-6) is recommended for detection of RBM12 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for RBM12 siRNA (h): sc-76364, RBM12 siRNA (m): sc-152725, RBM12 shRNA Plasmid (h): sc-76364-SH, RBM12 shRNA Plasmid (m): sc-152725-SH, RBM12 shRNA (h) Lentiviral Particles: sc-76364-V and RBM12 shRNA (m) Lentiviral Particles: sc-152725-V.

Molecular Weight (predicted) of RBM12: 97 kDa.

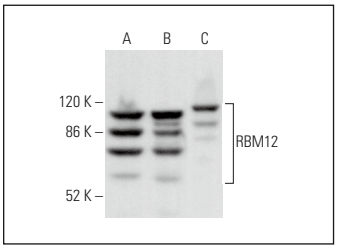
Molecular Weight (observed) of RBM12: 85 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, AN3 CA cell lysate: sc-24662 or NIH/3T3 whole cell lysate: sc-2210.

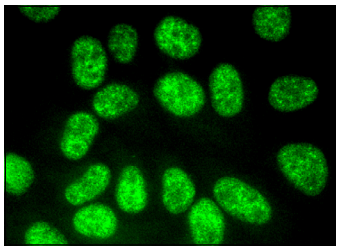
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



RBM12 (E-6): sc-514259. Western blot analysis of RBM12 expression in HL-60 (**A**), AN3 CA (**B**) and NIH/3T3 (**C**) whole cell lysates.



RBM12 (E-6): sc-514259. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Wakabayashi, A., et al. 2022. Identification and characterization of RBM12 as a novel regulator of fetal hemoglobin expression. Blood Adv. 6: 5956-5968.
2. Wang, J., et al. 2025. Nuclear condensates of WW domain-containing adaptor with coiled-coil regulate mitophagy via alternative splicing. Adv. Sci. 12: e2406759.

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.

PROTOCOLS

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