SANTA CRUZ BIOTECHNOLOGY, INC.

RBM4 (E-3): sc-373852

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

RBM4 (RNA binding motif protein 4), also known as LARK, RBM4A, ZCRB3A or ZCCHC21, is a 364 amino acid protein that localizes to both the nucleus and the cytoplasm and contains one CCHC-type zinc finger and two RRM domains. Expressed ubiquitously, RBM4 interacts with Importin-12 (an association which results in the nuclear import of RBM4) and is thought to play a role in alternative splice site selection during pre-mRNA processing. RBM4 is down-regulated in patients affected with fetal Down syndrome (DS), suggesting that RBM4 may be involved in the regulation of normal brain development. Multiple isoforms of RBM4 exist due to alternative splicing events. RBM4B (RNA binding motif protein 4B), also known as RBM30, is a 359 amino acid protein that functions in a similar manner to RBM4 and is involved in the regulation of alternative splicing.

CHROMOSOMAL LOCATION

Genetic locus: RBM4/RBM4B (human) mapping to 11q13.2; Rbm4/Rbm4b (mouse) mapping to 19 A.

SOURCE

RBM4 (E-3) is a mouse monoclonal antibody raised against amino acids 1-100 mapping at the N-terminus of RBM4A of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RBM4 (E-3) is available conjugated to agarose (sc-373852 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-373852 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-373852 PE), fluorescein (sc-373852 FITC), Alexa Fluor® 488 (sc-373852 AF488), Alexa Fluor® 546 (sc-373852 AF546), Alexa Fluor® 594 (sc-373852 AF594) or Alexa Fluor® 647 (sc-373852 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-373852 AF680) or Alexa Fluor® 790 (sc-373852 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

RBM4 (E-3) is recommended for detection of RBM4A and RBM4B 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).

RBM4 (E-3) is also recommended for detection of RBM4A and RBM4B in additional species, including equine, canine, bovine and porcine.

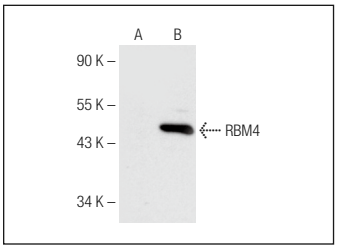
Molecular Weight of RBM4: 40 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, A-431 whole cell lysate: sc-2201or Jurkat whole cell lysate: sc-2204.

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



RBM4 (E-3): sc-373852. Western blot analysis of RBM4 expression in non-transfected (**A**) and human RBM4 transfected (**B**) HEK293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Serikawa, T., et al. 2018. Comprehensive identification of proteins binding to RNA G-quadruplex motifs in the 5' UTR of tumor-associated mRNAs. Biochimie 144: 169-184.
2. Miro, J., et al. 2020. First identification of RNA-binding proteins that regulate alternative exons in the dystrophin gene. Int. J. Mol. Sci. 21: 7803.
3. Lee, J.W., et al. 2020. Transcription-independent induction of ERBB1 through hypoxia-inducible factor 2A provides cardioprotection during ischemia and reperfusion. Anesthesiology 132: 763-780.
4. Méndez-Solís, O., et al. 2021. Kaposi's sarcoma herpesvirus activates the hypoxia response to usurp HIF2α-dependent translation initiation for replication and oncogenesis. Cell Rep. 37: 110144.
5. Han, H., et al. 2022. RNA-binding motif 4 promotes angiogenesis in HCC by selectively activating VEGF-A expression. Pharmacol. Res. 187: 106593.

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 for detailed protocols and support products.