SANTA CRUZ BIOTECHNOLOGY, INC.

SCNM1 (F-9): sc-376457



BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. SCNM1 (sodium channel modifier 1) is a 230 amino acid protein that contains one matrin-type zinc finger. Localized to the nucleus, SCNM1 is thought to function as an RNA splicing factor that may modify the expression of sodium channel-related proteins. SCNM1 exists as two alternatively spliced isoforms that are encoded by a gene which maps to chromosome 1. Chromosome 1 is the largest human chromosome, spanning about 260 million base pairs and making up 8% of the human genome. Several disorders, including Stickler syndrome, Parkinsons disease, Gaucher disease, malignant melanoma and Usher syndrome, are caused by defects in genes that localize to chromosome 1.

REFERENCES

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- 2. Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 608095. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Buchner, D.A., et al. 2003. High-resolution mapping of the sodium channel modifier SCNM1 on mouse chromosome 3 and identification of a 1.3-kb recombination hot spot. Genomics 82: 452-459.
- Buchner, D.A., et al. 2003. SCNM1, a putative RNA splicing factor that modifies disease severity in mice. Science 301: 967-969.
- Howell, V.M., et al. 2007. Evidence for a direct role of the disease modifier SCNM1 in splicing. Hum. Mol. Genet. 16: 2506-2516.
- Howell, V.M., et al. 2008. A targeted deleterious allele of the splicing factor SCNM1 in the mouse. Genetics 180: 1419-1427.

CHROMOSOMAL LOCATION

Genetic locus: SCNM1 (human) mapping to 1q21.3; Scnm1 (mouse) mapping to 3 F2.1.

SOURCE

SCNM1 (F-9) is a mouse monoclonal antibody raised against amino acids 1-230 representing full length SCNM1 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.

STORAGE

Store at 4° C, **D0 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

SCNM1 (F-9) is recommended for detection of SCNM1 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 SCNM1 siRNA (h): sc-88500, SCNM1 siRNA (m): sc-153263, SCNM1 shRNA Plasmid (h): sc-88500-SH, SCNM1 shRNA Plasmid (m): sc-153263-SH, SCNM1 shRNA (h) Lentiviral Particles: sc-88500-V and SCNM1 shRNA (m) Lentiviral Particles: sc-153263-V.

Molecular Weight of SCNM1: 30 kDa.

Positive Controls: CCRF-CEM cell lysate: sc-2225, NAMALWA cell lysate: sc-2234 or Jurkat whole cell lysate: sc-2204.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM 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-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.







SCNM1 (F-9): sc-376457. Western blot analysis of SCNM1 expression in CCRF-CEM (A) and NAMALWA (B) whole cell lysates.

SCNM1 (F-9): sc-376457. Western blot analysis of SCNM1 expression in Jurkat (**A**) and TK-1 (**B**) whole cell lysates.

PROTOCOLS

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