

# SCNM1 (FL-230): sc-135396

## 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

1. Sprunger, L.K., Escayg, A., Tallaksen-Greene, S., Albin, R.L. and Meisler, M.H. 1999. Dystonia associated with mutation of the neuronal sodium channel SCN8A and identification of the modifier locus SCNM1 on mouse chromosome 3. *Hum. Mol. Genet.* 8: 471-479.
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/>
3. Buchner, D.A., Trudeau, M., George, A.L., Sprunger, L.K. and Meisler, M.H. 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.
4. Buchner, D.A., Trudeau, M. and Meisler, M.H. 2003. SCNM1, a putative RNA splicing factor that modifies disease severity in mice. *Science* 301: 967-969.
5. Howell, V.M., Jones, J.M., Bergren, S.K., Li, L., Billi, A.C., Avenarius, M.R. and Meisler, M.H. 2007. Evidence for a direct role of the disease modifier SCNM1 in splicing. *Hum. Mol. Genet.* 16: 2506-2516.
6. Howell, V.M., de Haan, G., Bergren, S., Jones, J.M., Culiati, C.T., Michaud, E.J., Frankel, W.N. and Meisler, M.H. 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 (FL-230) is a rabbit polyclonal antibody raised against amino acids 1-230 representing full length SCNM2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

SCNM1 (FL-230) is recommended for detection of SCNM1 of mouse, rat and human 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

SCNM1 (FL-230) is also recommended for detection of SCNM1 in additional species, including equine, canine, bovine and porcine.

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.

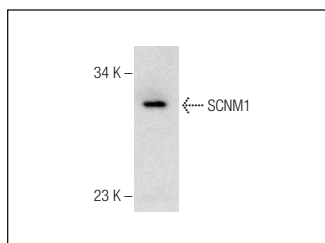
Molecular Weight of SCNM1: 30 kDa.

Positive Controls: CCRF-CEM nuclear extract: sc-2146 or NIH/3T3 nuclear extract: sc-2138.

## 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



SCNM1 (FL-230): sc-135396. Western blot analysis of SCNM1 expression in CCRF-CEM nuclear extract.

## 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.