SANTA CRUZ BIOTECHNOLOGY, INC.

NIF3L1 (N-17): sc-48049

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The Power to Question

BACKGROUND

The NGG1 interacting factor 3-like 1 (NIF3L1) is a 377 amino acid protein expressed mainly in the cytoplasm of cells in several different tissues. It has been highly conserved throughout evolution, from bacteria to mammals. NIF3L1 participates in retinoic acid-primed neural differentiation of P19 embryonic carcinoma cells by cooperating with Trip15/CSN2, a transcriptional corepressor/component of COP9 signalosome. NIF3L1 interacts with itself and with the NIF3L1 binding protein 1 (NIF3L1 BP1), which is a novel protein presumed to contain a leucine zipper domain.

REFERENCES

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2. Hadano, S., et al. 2001. Cloning and characterization of three novel genes, ALS2CR1, ALS2CR2 and ALS2CR3, in the juvenile amyotrophic lateral sclerosis (ALS2) critical region at chromosome 2q33-q34: candidate genes for ALS2. Genomics 71: 200-213.
3. Tascou, S., et al. 2001. Isolation and characterization of a novel human gene, NIF3L1, and its mouse ortholog, Nif3l1, highly conserved from bacteria to mammals. Cytogenet. Cell Genet. 90: 330-336.
4. Akiyama, H., et al. 2003. The role of transcriptional corepressor Nif3l1 in early stage of neural differentiation via cooperation with Trip15/CSN2. J. Biol. Chem. 278: 10752-10762.
5. Tascou, S., et al. 2003. Identification and characterization of NIF3L1 BP1, a novel cytoplasmic interaction partner of the NIF3L1 protein. Biochem. Biophys. Res. Commun. 309: 440-448.
6. Merla, G., et al. 2004. The subcellular localization of the ChoRE-binding protein, encoded by the Williams-Beuren syndrome critical region gene 14, is regulated by 14-3-3. Hum. Mol. Genet. 13: 1505-1514.
7. Giuffrida, V., et al. 2006. Gene expression in mouse spermatogenesis during ontogenesis. Int. J. Mol. Med. 17: 523-528.

CHROMOSOMAL LOCATION

Genetic locus: NIF3L1 (human) mapping to 2q33.1; Nif3l1 (mouse) mapping to 1 C1.3.

SOURCE

NIF3L1 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of NIF3L1 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.

Blocking peptide available for competition studies, sc-48049 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NIF3L1 (N-17) is recommended for detection of NIF3L1 of mouse 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).

NIF3L1 (N-17) is also recommended for detection of NIF3L1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for NIF3L1 siRNA (h): sc-61193, NIF3L1 siRNA (m): sc-61194, NIF3L1 shRNA Plasmid (h): sc-61193-SH, NIF3L1 shRNA Plasmid (m): sc-61194-SH, NIF3L1 shRNA (h) Lentiviral Particles: sc-61193-V and NIF3L1 shRNA (m) Lentiviral Particles: sc-61194-V.

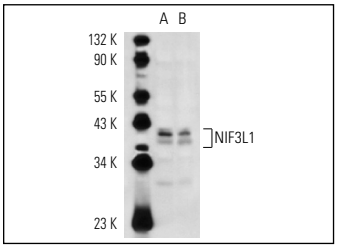
Molecular Weight of NIF3L1: 42 kDa.

Positive Controls: P19 cell lysate: sc-24760 or F9 cell lysate: sc-2245.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



NIF3L1 (N-17): sc-48049. Western blot analysis of NIF3L1 expression in P19 (**A**) and F9 (**B**) whole cell lysates.

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.