

Neurofibromin (H-300): sc-20683

BACKGROUND

Neurofibromatosis type 1 (NF1), or von Recklinghausen neurofibromatosis, is one of the most common autosomal dominant disorders in humans. Early linkage analysis mapped the NF1 gene to chromosome 17. The predicted NF1 transcript encodes the 2,818 amino acid protein Neurofibromin, also designated NF1-GAP-related protein (NF1GRP). By sequence analysis, similarity has been demonstrated within a small region of Neurofibromin and members of the Ras GAP gene family. Functionally, Neurofibromin has been shown by biochemical analysis involving RAS-GAP hydrolysis and functional complementation in yeast to further resemble GAP protein. The Neurofibromin protein is expressed at relatively constant levels in a broad range of cell lines and tissues including brain, lung, liver, kidney, spleen, muscle and colon. Although little is known regarding the function of Neurofibromin, the homology with the catalytic domain of proteins with GTPase activity suggests that Neurofibromin may also interact *in vivo* with Ras proteins.

CHROMOSOMAL LOCATION

Genetic locus: NF1 (human) mapping to 17q11.2; Nf1 (mouse) mapping to 11 B5.

SOURCE

Neurofibromin (H-300) is a rabbit polyclonal antibody raised against amino acids 241-540 mapping near the N-terminus of Neurofibromin 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.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Neurofibromin (H-300) is recommended for detection of Neurofibromin 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).

Neurofibromin (H-300) is also recommended for detection of Neurofibromin in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Neurofibromin siRNA (h): sc-36036, Neurofibromin siRNA (m): sc-36037, Neurofibromin shRNA Plasmid (h): sc-36036-SH, Neurofibromin shRNA Plasmid (m): sc-36037-SH, Neurofibromin shRNA (h) Lentiviral Particles: sc-36036-V and Neurofibromin shRNA (m) Lentiviral Particles: sc-36037-V.

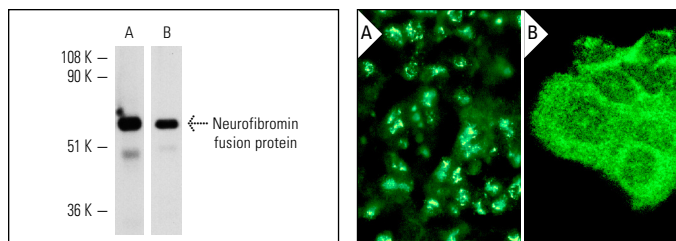
Molecular Weight of Neurofibromin: 250 kDa.

Positive Controls: H4 cell lysate: sc-2408, A-431 whole cell lysate: sc-2201 or HeLa whole cell lysate: sc-2200.

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



Neurofibromin (H-300): sc-20683. Western blot analysis of human recombinant Neurofibromin fusion protein (A,B). Antibodies tested include: Neurofibromin (H-300): sc-20683 (A) and Neurofibromin (N): sc-68 (B).

Neurofibromin (H-300): sc-20683. Immunofluorescence staining of normal mouse kidney frozen section showing cytoskeletal staining (A). Immunofluorescence staining of methanol-fixed SK-N-SH cells showing cytoskeletal localization (B).

SELECT PRODUCT CITATIONS

1. Katiyar, P., et al. 2009. Mechanism of BRCA1-mediated inhibition of progesterone receptor transcriptional activity. *Mol. Endocrinol.* 23: 1135-1146.

RESEARCH USE

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

PROTOCOLS

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



Try **Neurofibromin (H-12): sc-376886** or **Neurofibromin (McNFn27a): sc-20017**, our highly recommended monoclonal alternatives to Neurofibromin (H-300). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Neurofibromin (H-12): sc-376886**.