SANTA CRUZ BIOTECHNOLOGY, INC.

Neurofibromin (SMI-312): sc-56165

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Neurofibromatosis type 1 (NF1), or von Reckinghausen neurofibro- matosis, 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 a 2818 amino acid protein designated NF1GRP. By sequence analysis, similarity has been demonstrated within a small region of NF1GRP and members of the Ras GAP gene family. Functionally, NF1GRP was shown by biochemical analysis involving RAS-GAP hydrolysis and functional complementation in yeast to further resemble GAP protein. The NF1 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 NF1GRP, the homology with the catalytic domain of proteins with GTPase activity suggests that the NF1GRP may also interact *in vivo* with Ras proteins.

REFERENCES

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3. Xu, G., et al. 1990. The neurofibromatosis type 1 gene encodes a protein related to GAP. Cell 62: 599-608.
4. Ballester, R.M., et al. 1990. The NF1 locus encodes a protein functionally related to mammalian GAP and yeast IRA proteins. Cell 63: 851-859.
5. Martin, G.A., et al. 1990. The GAP-related domain of the neurofibromatosis type 1 gene product interacts with ras p21. Cell 63: 843-849.
6. Xu, G., et al. 1990. The catalytic domain of the neurofibromatosis type 1 gene product stimulates ras GTPase and complements ira mutants of S. cerevisiae. Cell 63: 835-841.
7. Gutmann, D.H., et al. 1991. Identification of the neurofibromatosis type 1 gene product. Proc. Natl. Acad. Sci. USA 88: 9658-9662.

CHROMOSOMAL LOCATION

Genetic locus: NF1 (human) mapping to 17q11.2; Nf1 (mouse) mapping to 11 B4-5.

SOURCE

Neurofibromin (SMI-312) is a mouse monoclonal antibody raised against homogenized hypothalmi of rat origin.

PRODUCT

Each vial contains 100 µg IgG_1 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 (SMI-312) 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), immunofluorescence and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Neurofibromin siRNA (h): sc-36036 and Neurofibromin siRNA (m): sc-36037.

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-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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) Immunohistochemistry: use ImmunoCruz™: sc-2050 or ABC: sc-2017 mouse IgG Staining Systems.

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.