SANTA CRUZ BIOTECHNOLOGY, INC.

p-Neurofibromin (Ser 2515): sc-130208

BACKGROUND

Neurofibromatosis type 1 (NF1), or von Reckinghausen 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. Human Neurofibromin is subject to phosphorylation at Ser 2515.

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.
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5. 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.
6. Gutmann, D.H., et al. 1991. Identification of the neurofibromatosis type 1 gene product. Proc. Natl. Acad. Sci. USA 88: 9658-9662.
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8. Zhu, H., et al. 2008. Regulation of neuron-specific alternative splicing of neurofibromatosis type 1 pre-mRNA. Mol. Cell. Biol. 28: 1240-1251.
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CHROMOSOMAL LOCATION

Genetic locus: NF1 (human) mapping to 17q11.2.

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.

SOURCE

p-Neurofibromin (Ser 2515) is a rabbit polyclonal antibody raised against a short amino acid sequence containing phosphorylated Ser 2515 of Neurofibromin of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

p-Neurofibromin (Ser 2515) is recommended for detection of Ser 2515 phosphorylated Neurofibromin of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

Molecular Weight of p-Neurofibromin: 250 kDa.

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).

PROTOCOLS

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