

# p-NF2 (Ser 518): sc-101735

## BACKGROUND

Neurofibromatosis type 2 (NF2) is a dominantly inherited disorder characterized by the occurrence of bilateral vestibular schwannomas and other central nervous system tumors, including multiple meningiomas. NF2 occurs in about 1 of 40,000 live births. The NF2 gene is highly penetrant; NF2-affected individuals have a 95% chance of developing bilateral vestibular schwannomas. NF2 is distinct from NF1, which is characterized by an incidence of 1 in 4000, maps to chromosome 17 and encodes a protein designated neurofibromin, which is a large protein with a GAP domain. Genetic linkage studies of both sporadic and familial tumors suggest that NF2 is caused by inactivation of a tumor suppressor gene that maps on chromosome 22q12.2 and encodes a 595 amino acid protein whose function appears to be mediated by interaction with the cytoskeleton.

## REFERENCES

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3. Evans, D.G.R., et al. 1992. A genetic study of type 2 neurofibromatosis in the United Kingdom. I. Prevalence, mutation rate, fitness and confirmation of maternal transmission effect on severity. *J. Med. Genet.* 29: 841-846.
4. DeClue, J.E., et al. 1992. Abnormal regulation of mammalian p21Ras contributes to malignant tumor growth in von Recklinghausen (type 1) neurofibromatosis. *Cell* 69: 265-273.
5. Trofatter, J.A., et al. 1993. A novel Moesin-, Ezrin-, Radixin-like gene is a candidate for the neurofibromatosis 2 tumor suppressor. *Cell* 72: 791-800.
6. Kinzler, K.W., et al. 1993. A gene for neurofibromatosis 2. *Nature* 363: 495-496.
7. Rouleau, G.A., et al. 1993. Alteration in a new gene encoding a putative membrane-organizing protein causes neurofibromatosis type 2. *Nature* 363: 515-521.
8. Ferner, R.E., et al. 2007. Neurofibromatosis 1 and neurofibromatosis 2: a twenty first century perspective. *Lancet Neurol.* 6: 340-351.
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## CHROMOSOMAL LOCATION

Genetic locus: NF2 (human) mapping to 22q12.2; Nf2 (mouse) mapping to 11 A1.

## SOURCE

p-NF2 (Ser 518) is a rabbit polyclonal antibody raised against a short amino acid sequence containing Ser 518 phosphorylated NF2 of human origin.

## PRODUCT

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

## APPLICATIONS

p-NF2 (Ser 518) is recommended for detection of Ser 518 phosphorylated NF2 of human and mouse origin and correspondingly phosphorylated Ser 514 of rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for NF2 siRNA (h): sc-36052, NF2 siRNA (m): sc-36053, NF2 shRNA Plasmid (h): sc-36052-SH, NF2 shRNA Plasmid (m): sc-36053-SH, NF2 shRNA (h) Lentiviral Particles: sc-36052-V and NF2 shRNA (m) Lentiviral Particles: sc-36053-V.

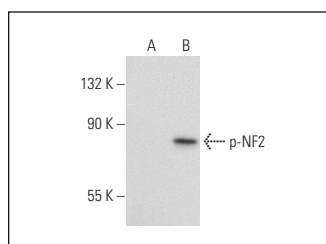
Molecular Weight of p-NF2: 70 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HeLa whole cell lysate: sc-2200 or NF2 (h3): 293T Lysate: sc-172383.

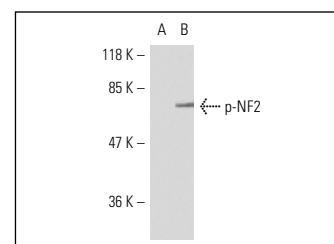
## RECOMMENDED SECONDARY REAGENTS

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 B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Western Blotting Luminol Reagent: sc-2048 and Lambda Phosphatase: sc-200312A. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

## DATA



p-NF2 (Ser 518): sc-101735. Western blot analysis of NF2 phosphorylation in non-transfected: sc-117752 (A) and human NF2 transfected: sc-172383 (B) 293T whole cell lysates.



p-NF2 (Ser 518): sc-101735. Western blot analysis of phosphorylated NF2 expression in untreated (A) and IFN-α-treated (B) HUVEC 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.