

# NF2 (C-18): sc-332



The Power to Question

## 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 one 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 one in 4,000, 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

NF2 (C-18) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of NF2 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-332 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

NF2 (C-18) is recommended for detection of NF2 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 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

NF2 (C-18) is also recommended for detection of NF2 in additional species, including equine, canine, bovine, porcine and avian.

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 NF2: 70 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214, MCF7 whole cell lysate: sc-2206 or Jurkat whole cell lysate: sc-2204.

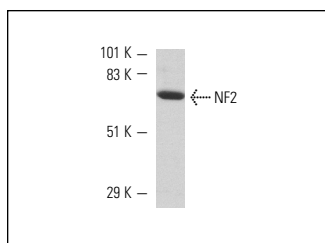
## STORAGE

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

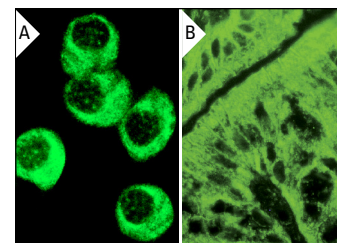
## RESEARCH USE

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

## DATA



NF2 (C-18): sc-332. Western blot analysis of NF2 expression in KNRK whole cell lysate.



NF2 (C-18): sc-332. Immunofluorescence staining of methanol-fixed KNRK cells showing cytoplasmic staining (A). Immunofluorescence staining of normal mouse intestine frozen section showing cytoplasmic staining (B).

## SELECT PRODUCT CITATIONS

- Lee, J.H., et al. 1997. Reduced expression of schwannomin/merlin in human spradic meningiomas. *Neurosurgery* 40: 578-587.
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- Bai, Y., et al. 2007. Inhibition of the hyaluronan-CD44 interaction by merlin contributes to the tumor-suppressor activity of merlin. *Oncogene* 26: 836-850.
- Lallemand, D., et al. 2009. Tumor-suppression functions of merlin are independent of its role as an organizer of the actin cytoskeleton in Schwann cells. *J. Cell Sci.* 122: 4141-4149.
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- Schulz, A., et al. 2010. Merlin inhibits neurite outgrowth in the CNS. *J. Neurosci.* 30: 10177-10186.
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- Sosa-García, B., et al. 2010. A role for the retinoblastoma protein as a regulator of mouse osteoblast cell adhesion: implications for osteogenesis and osteosarcoma formation. *PLoS ONE* 5: e13954.

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Try **NF2 (B-12): sc-55575** or **NF2 (E-2): sc-55574**, our highly recommended monoclonal alternatives to NF2 (C-18). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **NF2 (B-12): sc-55575**.