

# NF2 (H-260): sc-28247

## 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.

## REFERENCES

1. Rouleau, G.A., et al. 1990. Flanking markers bracket the neurofibromatosis type 2 (NF2) gene on chromosome 22. *Am. J. Hum. Genet.* 46: 323-328.
2. Narod, S.A., et al. 1992. Neurofibromatosis type 2 appears to be a genetically homogeneous disease. *Am. J. Hum. Genet.* 51: 486-496.

## CHROMOSOMAL LOCATION

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

## SOURCE

NF2 (H-260) is a rabbit polyclonal antibody raised against amino acids 336-595 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.

## APPLICATIONS

NF2 (H-260) is recommended for detection of NF2 isoforms 1-10 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

NF2 (H-260) is also recommended for detection of NF2 isoforms 1-10 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.

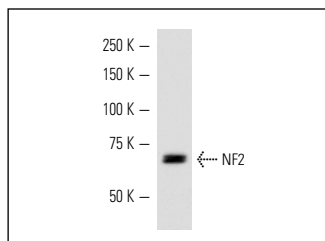
Molecular Weight of NF2: 70 kDa.

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

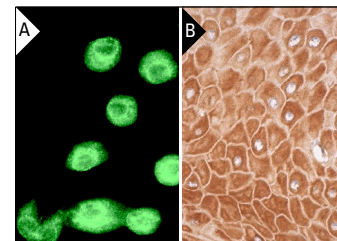
## STORAGE

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

## DATA



NF2 (H-260): sc-28247. Western blot analysis of NF2 expression in MCF7 whole cell lysate.



NF2 (H-260): sc-28247. Immunofluorescence staining of methanol-fixed KNRK cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human oral mucosa tissue showing cytoplasmic staining of squamous epithelial cells (B).

## SELECT PRODUCT CITATIONS

1. Lee, J.Y., et al. 2006. Merlin facilitates ubiquitination and degradation of transactivation-responsive RNA-binding protein. *Oncogene* 25: 1143-1152.
2. Meng, F., et al. 2007. The MicroRNA let-7a modulates interleukin-6-dependent STAT-3 survival signaling in malignant human cholangiocytes. *J. Biol. Chem.* 282: 8256-8264.
3. Altomare, D.A., et al. 2009. Activated TNF- $\alpha$ /NF $\kappa$ B signaling via down-regulation of Fas-associated factor 1 in asbestos-induced mesotheliomas from Arf knockout mice. *Proc. Natl. Acad. Sci. USA* 106: 3420-3425.
4. Aravindan, S., et al. 2013. Radiation-induced TNF $\alpha$  cross signaling-dependent nuclear import of NF $\kappa$ B favors metastasis in neuroblastoma. *Clin. Exp. Metastasis.* 30: 807-817.

## 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.



Try **NF2 (B-12): sc-55575** or **NF2 (E-2): sc-55574**, our highly recommended monoclonal alternatives to NF2 (H-260). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **NF2 (B-12): sc-55575**.