

Neurofibromin (E-8): sc-398267

BACKGROUND

Neurofibromatosis type 1 (NF1), or von Recklinghausen neurofibromatosis, is one of the most common autosomal dominant disorders in humans. Early linkage analysis mapped the NF1 gene to chromosome 17q11.2. 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.

CHROMOSOMAL LOCATION

Genetic locus: NF1 (human) mapping to 17q11.2; Nf1 (mouse) mapping to 11 B5.

SOURCE

Neurofibromin (E-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 507-530 within the N-terminus of Neurofibromin of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-398267 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Neurofibromin (E-8) is recommended for detection of Neurofibromin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Neurofibromin (E-8) is also recommended for detection of Neurofibromin in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Neurofibromin siRNA (h): sc-36036, Neurofibromin siRNA (m): sc-36037, Neurofibromin siRNA (r): sc-270621, Neurofibromin shRNA Plasmid (h): sc-36036-SH, Neurofibromin shRNA Plasmid (m): sc-36037-SH, Neurofibromin shRNA Plasmid (r): sc-270621-SH, Neurofibromin shRNA (h) Lentiviral Particles: sc-36036-V, Neurofibromin shRNA (m) Lentiviral Particles: sc-36037-V and Neurofibromin shRNA (r) Lentiviral Particles: sc-270621-V.

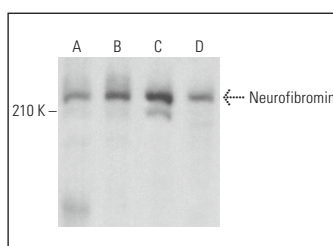
Molecular Weight of Neurofibromin: 250 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or rat brain extract: sc-2392.

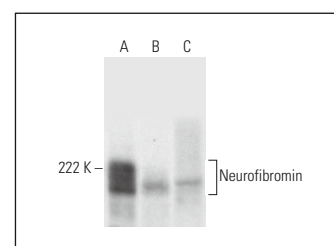
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Neurofibromin (E-8): sc-398267. Western blot analysis of Neurofibromin expression in Caco-2 (A), A-431 (B), NIH/3T3 (C) and c4 (D) whole cell lysates.



Neurofibromin (E-8): sc-398267. Western blot analysis of Neurofibromin expression in HeLa (A) and Hep G2 (B) whole cell lysates and rat brain tissue extract (C).

SELECT PRODUCT CITATIONS

1. Bejarano, L., et al. 2017. Inhibition of TRF1 telomere protein impairs tumor initiation and progression in glioblastoma mouse models and patient-derived xenografts. *Cancer Cell* 32: 590-607.e4.
2. Ahmed, M., et al. 2018. Functional linkage of RKIP to the epithelial to mesenchymal transition and autophagy during the development of prostate cancer. *Cancers* 10: 273.

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 for detailed protocols and support products.



See **Neurofibromin (H-12): sc-376886** for Neurofibromin antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.