

Neuritin (B-9): sc-365538

BACKGROUND

Neurotrophins function to regulate naturally occurring cell death of neurons during development. The prototype neurotrophin is nerve growth factor (NGF). NGF is a soluble peptide that promotes the survival of, and neurite outgrowth from, sympathetic ganglia. Three additional structurally homologous neurotrophic factors have been identified. These include brain-derived neurotrophic factor (BDNF), neurotrophin-3 (NT-3), and neurotrophin-4 (NT-4, also designated NT-5). Neuritin is a glycosylphosphatidylinositol-anchored protein that is induced by neural activity as well as by BDNF and NT-3. Neuritin modulates neurite growth extracellularly and is present in development and in the adult nervous system, indicating its involvement in neuronal plasticity. In addition to BDNF induction of Neuritin, it has been shown that both Neuritin and BDNF are induced by light stimulation of the visual cortex. Neuritin appears to be located downstream of BDNF and may mediate some of the effects of BDNF.

CHROMOSOMAL LOCATION

Genetic locus: NRN1 (human) mapping to 6p25.1; Nrn1 (mouse) mapping to 13 A3.3.

SOURCE

Neuritin (B-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 42-67 at the N-terminus of Neuritin of human origin.

PRODUCT

Each vial contains 200 µg IgM 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-365538 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Neuritin (B-9) is recommended for detection of Neuritin 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Neuritin (B-9) is also recommended for detection of Neuritin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Neuritin siRNA (h): sc-42064, Neuritin siRNA (m): sc-42065, Neuritin shRNA Plasmid (h): sc-42064-SH, Neuritin shRNA Plasmid (m): sc-42065-SH, Neuritin shRNA (h) Lentiviral Particles: sc-42064-V and Neuritin shRNA (m) Lentiviral Particles: sc-42065-V.

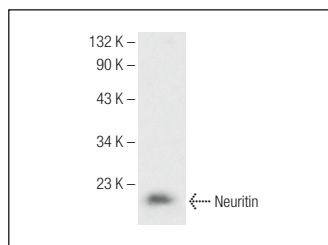
Molecular Weight of Neuritin: 15 kDa.

Positive Controls: Daudi cell lysate: sc-2415.

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 L-Agarose: sc-2336 (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



Neuritin (B-9): sc-365538. Western blot analysis of Neuritin expression in Daudi whole cell lysate.

SELECT PRODUCT CITATIONS

1. Zhang, Q., et al. 2019. The biological-behavioral effect of Neuritin on non-small cell lung cancer vascular endothelial cells via VEGFR and Notch1. *Onco Targets Ther.* 12: 9747-9755.
2. Zhang, L., et al. 2020. Loss of ZC4H2 and RNF220 inhibits neural stem cell proliferation and promotes neuronal differentiation. *Cells* 9: 1600.
3. Gonzalez-Figueroa, P., et al. 2021. Follicular regulatory T cells produce neuritin to regulate B cells. *Cell* 184: 1775-1789.e19.
4. Devitt, L., et al. 2024. NRN1 interacts with Notch to increase oncogenic STAT3 signaling in melanoma. *Cell Commun. Signal.* 22: 256.

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.