

NGF (M-20): sc-549

BACKGROUND

Neurotrophins function to regulate naturally occurring cell death of neurons during development. The prototype neurotrophin is nerve growth factor (NGF), originally discovered in the 1950s as a soluble peptide promoting 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). These various neurotrophins stimulate the *in vitro* survival of distinct, but partially overlapping, populations of neurons. The cell surface receptors through which neurotrophins mediate their activity have been identified. For instance, the Trk A receptor is the preferential receptor for NGF, but also binds NT-3 and NT-4. The Trk B receptor binds both BDNF and NT-4 equally well, and binds NT-3 to a lesser extent, while the Trk C receptor only binds NT-3.

CHROMOSOMAL LOCATION

Genetic locus: NGF (human) mapping to 1p13.2; Ngf (mouse) mapping to 3 F2.2.

SOURCE

NGF (M-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of NGF mature chain of mouse 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-549 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NGF (M-20) is recommended for detection of NGF 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).

NGF (M-20) is also recommended for detection of NGF in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for NGF siRNA (h): sc-43970, NGF siRNA (m): sc-45783, NGF shRNA Plasmid (h): sc-43970-SH, NGF shRNA Plasmid (m): sc-45783-SH, NGF shRNA (h) Lentiviral Particles: sc-43970-V and NGF shRNA (m) Lentiviral Particles: sc-45783-V.

Molecular Weight of mature NGF: 13 kDa.

Molecular Weight of NGF precursor: 27 kDa.

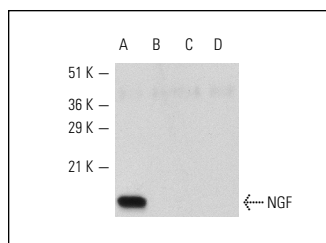
STORAGE

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



NGF (M-20): sc-549. Western blot analysis of 10 µg each of NGF (A), BDNF (B), NT-3 (C) and NT-4 (D) purified proteins.

SELECT PRODUCT CITATIONS

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- Esposito, E., et al. 2011. Effects of palmitoylethanolamide on release of mast cell peptidases and neurotrophic factors after spinal cord injury. *Brain Behav. Immun.* 25: 1099-1112.
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