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 TrkA receptor is the preferential receptor for NGF, but also binds NT-3 and NT-4. The TrkB receptor binds both BDNF and NT-4 equally well, and binds NT-3 to a lesser extent, while the TrkC receptor only binds NT-3.

CHROMOSOMAL LOCATION

Genetic locus: NTF4 (human) mapping to 19q13.33; Ntf5 (mouse) mapping to 7 B4.

SOURCE

NT-4 (N-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of NT-4 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-545 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NT-4 (N-20) is recommended for detection of NT-4 and, to a lesser extent, NT-6 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).

NT-4 (N-20) is also recommended for detection of NT-4 and, to a lesser extent, NT-6 in additional species, including equine, canine, bovine and porcine.

Molecular Weight of NT-4: 14 kDa.

Positive Controls: mouse skin extract: sc-364251 or human colon extract: sc-363757.

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


SELECT PRODUCT CITATIONS


Try NT-4 (C-1): sc-365444, our highly recommended monoclonal alternative to NT-4 (N-20).