SANTA CRUZ BIOTECHNOLOGY, INC.

NNT-1/BSF-3 (N-14): sc-13494



BACKGROUND

Neurotrophin-1/B cell-stimulating factor-3 (NNT-1/BSF-3, also known as cardiotrophin-like cytokine) is found mainly in lymph nodes and spleen. NNT-1/ BSF-3 induces tyrosine phosphorylation of the signal transducing receptor molecule glycoprotein 130 (gp130), leukemia inhibitory factor receptor β , and signal transducer and activator of transcription 3 in the SK-N-MC human neuroblastoma cells. The activation of gp130 distinguishes a group of cytokines referred to as the IL-6 family. They all show the conserved location of one intron in their gene structure and, in common with cytokines of the hematopoietin superfamily, the presence of a four-helix bundle in their protein structure. In addition to features typical of IL-6 family cytokines, including neurotropic effects, NNT-1/BSF-3 shows B cell-stimulating capability.

REFERENCES

- Yamasaki, K., Taga, T., Hirata, Y., Yawata, H., Kawanishi, Y., Seed, B., Taniguchi, T., Hirano, T. and Kishimoto, T. 1988. Cloning and expression of the human interleukin-6 (BSF-2/IFN beta 2) receptor. Science 241: 825-828.
- Kishimoto, T., Akira, S., Narazaki, M. and Taga, T. 1995. Interleukin-6 family of cytokines and gp130. Blood 86: 1243-1254.
- 3. Taga, T. and Kishimoto, T. 1997. Gp130 and the interleukin-6 family of cytokines. Annu. Rev. Immunol. 15: 797-819.
- Grotzinger, J., Kurapkat, G., Wollmer, A., Kalai, M. and Rose-John, S. 1997. The family of the IL-6-type cytokines: specificity and promiscuity of the receptor complexes. Proteins 27: 96-109.
- Varnum, B.C., Sarmiento, U., Starnes, C., Lile, J., Scully, S., Guo, J., Elliott, G., McNinch, J., Shaklee, C.L., Freeman, D., Manu, F., Simonet, W.S., Boone, T. and Chang, M.S. 1999. Novel neurotrophin-1/B cell-stimulating factor-3: a cytokine of the IL-6 family. Proc. Natl. Acad. Sci. USA 96: 11458-11463.

CHROMOSOMAL LOCATION

Genetic locus: CLCF1 (human) mapping to 11q13.2; Clcf1 (mouse) mapping to 19 A.

SOURCE

NNT-1/BSF-3 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of NNT-1/BSF-3 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-13494 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

NNT-1/BSF-3 (N-14) is recommended for detection of NNT-1/BSF-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

NNT-1/BSF-3 (N-14) is also recommended for detection of NNT-1/BSF-3 in additional species, including canine.

Suitable for use as control antibody for NNT-1/BSF-3 siRNA (h): sc-39685, NNT-1/BSF-3 siRNA (m): sc-39686, NNT-1/BSF-3 shRNA Plasmid (h): sc-39685-SH, NNT-1/BSF-3 shRNA Plasmid (m): sc-39686-SH, NNT-1/BSF-3 shRNA (h) Lentiviral Particles: sc-39685-V and NNT-1/BSF-3 shRNA (m) Lentiviral Particles: sc-39686-V.

Molecular Weight of NNT-1/BSF-3: 28 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluo-rescence: use donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS Satisfation Guaranteed

Try **NNT-1/BSF-3 (985-1): sc-74243**, our highly recommended monoclonal alternative to NNT-1/BSF-3 (N-14).