SANTA CRUZ BIOTECHNOLOGY, INC.

CNTFRα (H-182): sc-292166

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Ciliary neurotrophic factor, or CNTF, is a neuropoietic cytokine that promotes the survival and differentiation of a number of cell types including sensory, sympathetic and motor neurons. CNTF, LIF and IL-6 belong to a family of cytokines that share structural homology and signal through identical receptor components. The CNTF receptor (CNTFR) is comprised of CNTFRα, a CNTFR-specific chain and a heterodimer of the gp130 chain common to the IL-6 and LIF receptor and the LIFRβ chain. The CNTFR complex has been shown to augment DNA synthesis through the activation of transcription factors Stat1 and Stat3. CNTF has been implicated as a protein involved in the pathogenesis of amyotrophic lateral sclerosis, or ALS. However, unlike mice lacking CNTF, mice containing a homozygous null mutation in the gene encoding the CNTFRα chain die perinatally and display severe motor neuron deficits. This data suggests the existence of a second CNTFR ligand that plays a critical role in development of the neonatal nervous system.

CHROMOSOMAL LOCATION

Genetic locus: CNTFR (human) mapping to 9p13.3; Cntfr (mouse) mapping to 4 A5.

SOURCE

CNTFRα (H-182) is a rabbit polyclonal antibody raised against amino acids 25-206 mapping near the N-terminus of CNTFRα 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.

STORAGE

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

APPLICATIONS

CNTFRα (H-182) is recommended for detection of CNTFRα 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).

CNTFRα (H-182) is also recommended for detection of CNTFRα in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CNTFRα siRNA (h): sc-35076, CNTFRα siRNA (m): sc-35077, CNTFRα shRNA Plasmid (h): sc-35076-SH, CNTFRα shRNA Plasmid (m): sc-35077-SH, CNTFRα shRNA (h) Lentiviral Particles: sc-35076-V and CNTFRα shRNA (m) Lentiviral Particles: sc-35077-V.

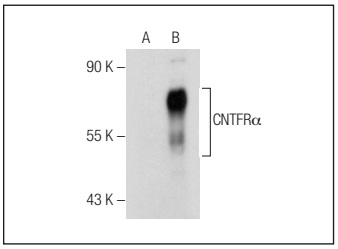
Molecular Weight of CNTFRα: 80 kDa.

Positive Controls: human CNTFRα transfected HEK293T whole cell lysates.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CNTFRα (H-182): sc-292166. Western blot analysis of CNTFRα expression in non-transfected (**A**) and human CNTFRα transfected (**B**) HEK293T whole cell lysates.

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.