**BACKGROUND**

The Trk proto-oncogene encodes a tyrosine protein kinase, Trk A, also designated Trk gp140, that serves as a receptor for certain neurotrophic factors including nerve growth factor (NGF) and neurotrophin-3 (NT-3). Trk B is a tyrosine kinase gene highly related to Trk A. Trk B expression is confined to tissues within the central and peripheral nervous systems. The brain-derived neurotrophic factor (BDNF) and NT-3, but not NGF, can induce rapid phosphorylation on tyrosine of Trk B gp145, one of the receptors encoded by Trk B, although BDNF elicits a response at least two orders of magnitude greater than NT-3. Thus it appears that Trk B gp145 may represent a neurotrophic receptor for BDNF and NT-3. The third member of the Trk family of tyrosine kinases, Trk C, encodes a protein designated Trk C gp145 that is preferentially expressed in brain tissue, equally related to Trk A and Trk B, and is a functional receptor for NT-3.

**CHROMOSOMAL LOCATION**

Genetic locus: NTRK2 (human) mapping to 9q21.33; Ntrk2 (mouse) mapping to 13 B1.

**SOURCE**

Trk B (H-181) is a rabbit polyclonal antibody raised against amino acids 160-340 of TrkB of origin.

**PRODUCT**

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Available as agarose conjugate for immunoprecipitation, sc-8316 AC, 500 µg/0.25 ml agarose in 1 ml.

**APPLICATIONS**

Trk B (H-181) is recommended for detection of TrkB, TrkB-T1 and TrkB-T-Shc of human origin, TrkB splice variants L1 and L10 of mouse origin and Trk B gp95 and TrkB gp145 of rat 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). Suitable for use as control antibody for TrkB siRNA (h): sc-36728, TrkB siRNA (m): sc-36729, TrkB shRNA Plasmid (h): sc-36728-SH, TrkB shRNA Plasmid (m): sc-36729-SH, TrkB shRNA (h) Lentiviral Particles: sc-36728-V and TrkB shRNA (m) Lentiviral Particles: sc-36729-V. Molecular Weight of TrkB splice variants: 95-145 kDa. Positive Controls: Rat brain extract: sc-2392, rat cerebellum extract: sc-2398 or mouse brain extract: sc-2253.

**STORAGE**

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

**SELECT PRODUCT CITATIONS**