

Trk B (H-8): sc-136990

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 NTRK2, 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, is 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.

SOURCE

Trk B (H-8) is a mouse monoclonal antibody raised against amino acids 209-298 of Trk B of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Trk B (H-8) is available conjugated to agarose (sc-136990 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-136990 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-136990 PE), fluorescein (sc-136990 FITC), Alexa Fluor® 488 (sc-136990 AF488), Alexa Fluor® 546 (sc-136990 AF546), Alexa Fluor® 594 (sc-136990 AF594) or Alexa Fluor® 647 (sc-136990 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-136990 AF680) or Alexa Fluor® 790 (sc-136990 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Trk B (H-8) is recommended for detection of Trk B of human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for Trk B siRNA (h): sc-36728, Trk B shRNA Plasmid (h): sc-36728-SH and Trk B shRNA (h) Lentiviral Particles: sc-36728-V.

Molecular Weight of Trk B splice variants: 95-145 kDa.

Positive Controls: Trk B (h): 293T Lysate: sc-113925, SK-N-SH cell lysate: sc-2410 or H4 cell lysate: sc-2408.

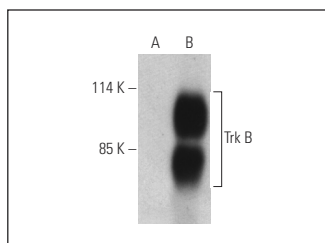
STORAGE

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

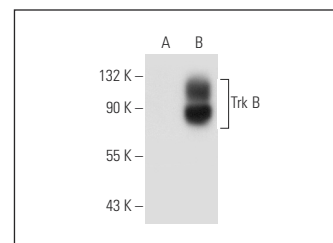
RESEARCH USE

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

DATA



Trk B (H-8) HRP: sc-136990 HRP. Direct western blot analysis of Trk B expression in non-transfected: sc-117752 (A) and human Trk B transfected: sc-113925 (B) 293T whole cell lysates.



Trk B (H-8): sc-136990. Western blot analysis of Trk B expression in non-transfected: sc-117752 (A) and human Trk B transfected: sc-113925 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

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- Chavez Valdez, R., et al. 2012. Effect of hyperoxic exposure during early development on neurotrophin expression in the carotid body and nucleus tractus solitarius. *J. Appl. Physiol.* 112: 1762-1772.
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- Kim, Y.J., et al. 2021. Antiangiogenic and antitumor potential of berbamine, a natural CaMKII γ inhibitor, against glioblastoma. *Biochem. Biophys. Res. Commun.* 566: 129-134.
- Anerillas, C., et al. 2022. A BDNF-TrkB autocrine loop enhances senescent cell viability. *Nat. Commun.* 13: 6228.
- Liu, P., et al. 2023. Inhibition of GluN2B pathway is involved in the neuroprotective effect of silibinin on streptozotocin-induced Alzheimer's disease models. *Phytomedicine* 109: 154594.
- Liu, J., et al. 2023. TMT-based proteomics profile reveals changes of the entorhinal cortex in a kainic acid model of epilepsy in mice. *Neurosci. Lett.* 800: 137127.

PROTOCOLS

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

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