

# TRK-T3 (H-210): sc-98969

## BACKGROUND

Oncogenic rearrangements of the NTRK1 gene, which encodes the Trk A protein, are frequently detected in thyroid carcinomas. Such rearrangements fuse the NTRK1 tyrosine kinase domain to 5'-end sequences of different genes. TRK-T3 contains 1,412 nucleotides of NTRK1 preceded by 598 nucleotides belonging to TFG (TRK-fused gene), a ubiquitously expressed gene located on chromosome 3. The TRK-T3 protein within the TFG region contains a coiled-coil motif that gives the oncoprotein the capability to form complexes. The cytoplasmic TRK-T3 protein binds to and phosphorylates the Shc and SNT1/FRS2 adaptor proteins, both of which are involved in coupling the receptor tyrosine kinase to the mitogen-activated protein kinase pathway by recruiting GRB2/Sos. SHP-1 also interacts with and downregulates TRK-T3.

## REFERENCES

1. Greco, A., Mariani, C., Miranda, C., Lupas, A., Pagliardini, S., Pomati, M. and Pierotti, M.A. 1995. The DNA rearrangement that generates the TRK-T3 oncogene involves a novel gene on chromosome 3 whose product has a potential coiled-coil domain. *Mol. Cell. Biol.* 15: 6118-6127.
2. Roccato, E., Miranda, C., Ranzi, V., Gishizki, M., Pierotti, M.A. and Greco, A. 2002. Biological activity of the thyroid TRK-T3 oncogene requires signalling through Shc. *Br. J. Cancer* 87: 645-653.

## CHROMOSOMAL LOCATION

Genetic locus: TFG (human) mapping to 3q12.2; Tfg (mouse) mapping to 16 C1.1.

## SOURCE

TRK-T3 (H-210) is a rabbit polyclonal antibody raised against amino acids 1-210 mapping at the N-terminus of TRK-T3 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.

## APPLICATIONS

TRK-T3 (H-210) is recommended for detection of TRK-T3 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).

Suitable for use as control antibody for TRK-T3 siRNA (h): sc-61720, TRK-T3 siRNA (m): sc-61721, TRK-T3 shRNA Plasmid (h): sc-61720-SH, TRK-T3 shRNA Plasmid (m): sc-61721-SH, TRK-T3 shRNA (h) Lentiviral Particles: sc-61720-V and TRK-T3 shRNA (m) Lentiviral Particles: sc-61721-V.

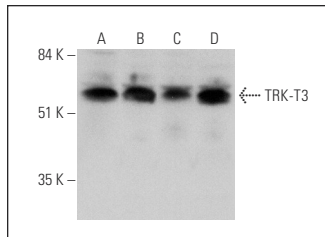
Molecular Weight of TRK-T3: 68 kDa.

Positive Controls: TFG (m): 293T Lysate: sc-123998, HeLa nuclear extract: sc-2120 or HeLa whole cell lysate: sc-2200

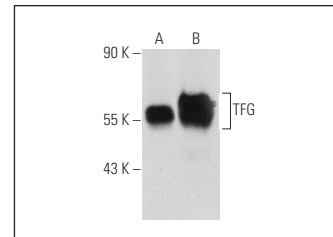
## RECOMMENDED SECONDARY REAGENTS

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



TRK-T3 (H-210): sc-98969. Western blot analysis of TRK-T3 expression in HeLa nuclear extract (A) and MDA-MB-435S (B), HeLa (C) and A549 (D) whole cell lysates.



TRK-T3 (H-210): sc-98969. Western blot analysis of TFG expression in non-transfected: sc-117752 (A) and mouse TFG transfected: sc-123998 (B) 293T whole cell lysates.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **TRK-T3 (H-11): sc-515054** or **TRK-T3 (E-7): sc-515055**, our highly recommended monoclonal alternatives to TRK-T3 (H-210).