

NGFR p75 (H-137): sc-8317

BACKGROUND

The Trk oncogene encodes a membrane-spanning protein tyrosine kinase, gp140Trk, whose expression is restricted *in vivo* to neurons of the sensory spinal and cranial ganglia of neural crest origin. Nerve growth factor (NGF) stimulates tyrosine phosphorylation of Trk A in neural cell lines and in embryonic dorsal root ganglia. Tyrosine phosphorylation of Trk by NGF is rapid, specific and occurs with picomolar quantities of factor, indicating that the response is mediated by physiological amounts of NGF, suggesting that Trk A participates in the primary signal transduction mechanism of NGF. An additional component of the Trk A receptor complex, NGFR p75, binds to the neurotrophic factors with low affinity but is required for efficient signaling. NGFR p75 accelerates Trk A activation and may recruit downstream effector molecules to the liganded complex.

CHROMOSOMAL LOCATION

Genetic locus: NGFR (human) mapping to 17q21.33; Ngfr (mouse) mapping to 11 D.

SOURCE

NGFR p75 (H-137) is a rabbit polyclonal antibody raised against amino acids 29-165 of NGFR p75 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

NGFR p75 (H-137) is recommended for detection of NGFR p75 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), 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).

NGFR p75 (H-137) is also recommended for detection of NGFR p75 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for NGFR p75 siRNA (h): sc-36058, NGFR p75 siRNA (m): sc-37268, NGFR p75 shRNA Plasmid (h): sc-36058-SH, NGFR p75 shRNA Plasmid (m): sc-37268-SH, NGFR p75 shRNA (h) Lentiviral Particles: sc-36058-V and NGFR p75 shRNA (m) Lentiviral Particles: sc-37268-V.

Molecular Weight of NGFR p75: 75 kDa.

Positive Controls: mouse brain extract: sc-2253, SK-N-MC cell lysate: sc-2237 or PC-12 cell lysate: sc-2250.

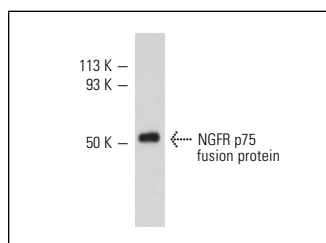
STORAGE

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

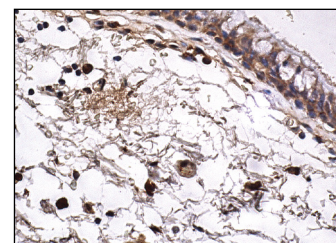
RESEARCH USE

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

DATA



NGFR p75 (H-137): sc-8317. Western blot analysis of human recombinant NGFR p75 fusion protein.



NGFR p75 (H-137): sc-8317. Immunoperoxidase staining of formalin fixed, paraffin-embedded human bronchus tissue showing cytoplasmic staining of respiratory epithelial cells.

SELECT PRODUCT CITATIONS

- Chiarenza, A., et al. 2001. Tamoxifen inhibits nerve growth factor-induced proliferation of the human breast cancerous cell line MCF-7. *Cancer Res.* 61: 3002-3008.
- Blasco-Gutiérrez, M.J., et al. 2007. TrkC: a new predictive marker in breast cancer? *Cancer Invest.* 25: 405-410.
- Peng, C.H., et al. 2007. Penta-acetyl geniposide-induced apoptosis involving transcription of NGF/p75 via MAPK-mediated AP-1 activation in C6 glioma cells. *Toxicology* 238: 130-139.
- Han, Y., et al. 2008. Nerve growth factor promotes formation of lumen-like structures *in vitro* through inducing apoptosis in human umbilical vein endothelial cells. *Biochem. Biophys. Res. Commun.* 366: 685-691.
- Unsain, N., et al. 2008. Status epilepticus induces a TrkB to p75 neurotrophin receptor switch and increases brain-derived neurotrophic factor interaction with p75 neurotrophin receptor: an initial event in neuronal injury induction. *Neuroscience* 154: 978-993.
- Li, H., et al. 2009. Egr-1 and Hipk2 are required for the TrkA to p75(NTR) switch that occurs downstream of IGF1-R. *Neurobiol. Aging* 30: 2010-2020.
- Lin, W.L., et al. 2010. Antitumor progression potential of caffeic acid phenethyl ester involving p75(NTR) in C6 glioma cells. *Chem. Biol. Interact.* 188: 607-615.
- Selimovic, D., et al. 2012. Apoptosis related protein-1 triggers melanoma cell death via interaction with the juxtamembrane region of p75 neurotrophin receptor. *J. Cell. Mol. Med.* 16: 349-361.

MONOS
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Try **NGFR p75 (B-1): sc-271708** or **NGFR p75 (H-6): sc-55467**, our highly recommended monoclonal alternatives to NGFR p75 (H-137). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **NGFR p75 (B-1): sc-271708**.