SANTA CRUZ BIOTECHNOLOGY, INC.

NGFR p75 (N-20): sc-6189

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 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus 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.

Blocking peptide available for competition studies, sc-6189 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NGFR p75 (N-20) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

NGFR p75 (N-20) 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: SK-N-MC cell lysate: sc-2237, PC-12 cell lysate: sc-2250 or mouse brain extract: sc-2253.

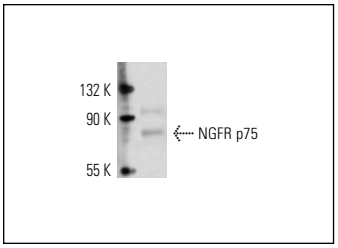
STORAGE

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

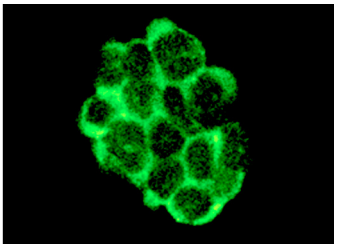
RESEARCH USE

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

DATA



NGFR p75 (N-20): sc-6189. Western blot analysis of NGFR p75 expression in PC-12 whole cell lysate.



NGFR p75 (N-20): sc-6189. Immunofluorescence staining of methanol-fixed SK-N-MC cells showing membrane localization.

SELECT PRODUCT CITATIONS

1. Della-Bianca, V., et al. 2001. Neurotrophin p75 receptor is involved in neuronal damage by prion peptide 106-126. J. Biol. Chem. 276: 38929-38933.
2. Wang, Y.Q., et al. 2008. Identification and kainic acid-induced up-regulation of low-affinity p75 neurotrophin receptor ($p75^{NTR}$) in the nigral dopamine neurons of adult rats. Neurochem. Int. 53: 56-62.
3. Smithson, L.J., et al. 2009. A comparative examination of biomarkers for olfactory ensheathing cells in cats and guinea pigs. Brain Res. 1284: 41-53.
4. Zhu, H., et al. 2012. Impaired N-cadherin-mediated adhesion increases the risk of inducible ventricular arrhythmias in isolated rat hearts. Sci. Res. Essays 7: 2983-2991.
5. Cherng, J.H., et al. 2013. Surgical-derived oral adipose tissue provides early stage adult stem cells. J. Dent. Sci. 9: 10-15.
6. Schachtrup, C., et al. 2015. Nuclear pore complex remodeling by p75(NTR) cleavage controls TGF-β signaling and astrocyte functions. Nat. Neurosci. 18: 1077-1080.

PROTOCOLS

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