SANTA CRUZ BIOTECHNOLOGY, INC.

NGFR p75 (C-20): sc-6188

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 (C-20) is is available as either goat (sc-6188) or rabbit (sc-6188-R) polyclonal affinity purified antibody raised against a peptide mapping at the C-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.

NGFR p75 (C-20) is available conjugated phycoerythrin (sc-6188 PE, 200 µg/ml), for IF, IHC(P) and FCM.

Blocking peptide available for competition studies, sc-6188 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NGFR p75 (C-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), flow cytometry (1 µg per 1 x 10^6 cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

NGFR p75 (C-20) is also recommended for detection of NGFR p75 in additional species, including equine, canine and bovine.

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.

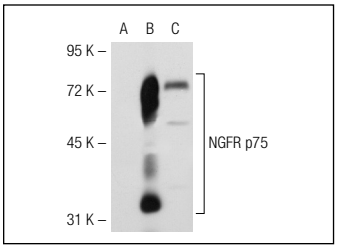
Molecular Weight of NGFR p75: 75 kDa.

Positive Controls: NGFR p75 (m): 293T Lysate: sc-125702, SK-N-MC cell lysate: sc-2237 or PC-12 cell lysate: sc-2250.

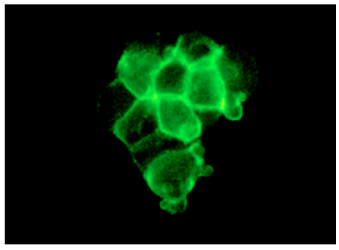
STORAGE

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

DATA



NGFR p75 (C-20): sc-6188. Western blot analysis of NGFR p75 expression in non-transfected 293T: sc-117752 (**A**), mouse NGFR p75 transfected 293T: sc-125702 (**B**) and SK-N-MC (**C**) whole cell lysates.



NGFR p75 (C-20): sc-6188. Immunofluorescence staining of methanol-fixed SK-N-MC cells showing membrane localization.

SELECT PRODUCT CITATIONS

1. Ricci, A., et al. 2000. Neurotrophin and neurotrophin receptor expression in alveolar macrophages: an immunocytochemical study. Growth Factors 18: 193-202.
2. Ricci, A., et al. 2000. Neurotrophins and neurotrophin receptors in human pulmonary arteries. J. Vasc. Res. 37: 355-363.
3. Dhar, S.S. and Wong-Riley, M.T. 2011. The kinesin superfamily protein KIF17 is regulated by the same transcription factor (NRF-1) as its cargo NR2B in neurons. Biochim. Biophys. Acta 1813: 403-411.
4. Chae, C.H., et al. 2011. Treadmill exercise suppresses muscle cell apoptosis by increasing nerve growth factor levels and stimulating p-phosphatidylinositol 3-kinase activation in the soleus of diabetic rats. J. Physiol. Biochem. 67: 235-241.
5. Kurth, T.B., et al. 2011. Functional mesenchymal stem cell niches in the adult knee joint synovium *in vivo*. Arthritis Rheum. 63: 1289-1300.
6. Johar, K., et al. 2012. Regulation of Na^+/K^+-ATPase by nuclear respiratory factor 1: implication in the tight coupling of neuronal activity, energy generation, and energy consumption. J. Biol. Chem. 287: 40381-40390.

RESEARCH USE

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