# SANTA CRUZ BIOTECHNOLOGY, INC.

# NGFR p75 (H-92): sc-5634



## 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 embry-onic 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-92) is a rabbit polyclonal antibody raised against amino acids 266-357 of NGFR p75 of human origin.

#### PRODUCT

Each vial contains 200  $\mu g$  IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

# **APPLICATIONS**

NGFR p75 (H-92) 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 (H-92) 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, \*\*D0 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





staining of methanol-fixed SK-N-MC cells showing

membrane localization

NGFR p75 (H-92): sc-5634. 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.

# SELECT PRODUCT CITATIONS

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- Fleming, C.E., et al. 2009. Transthyretin internalization by sensory neurons is megalin mediated and necessary for its neuritogenic activity. J. Neurosci. 29: 3220-3232.
- 4. Weng, Q., et al. 2009. Immunodetection of NGF, trkA, p75 and inhibin  $\alpha$ -subunit in interstitial cells of golden hamsters treated with hCG. J. Reprod. Dev. 55: 622-628.
- 5. Aliaga, E., et al. 2010. Dual response of BDNF to sublethal concentrations of  $\beta$ -amyloid peptides in cultured cortical neurons. Neurobiol. Dis. 37: 208-217.
- 6. Jin, W., et al. 2010. Effect of NGF on the motility and acrosome reaction of golden hamster spermatozoa *in vitro*. J. Reprod. Dev. 56: 437-443.
- Garcia, N., et al. 2011. Blocking p75 (NTR) receptors alters polyinnervationz of neuromuscular synapses during development. J. Neurosci. Res. 89: 1331-1341.
- Terry, A.V., et al. 2011. Age-dependent alterations in nerve growth factor (NGF)-related proteins, sortilin, and learning and memory in rats. Physiol. Behav. 102: 149-157.

# MONOS Satisfation Guaranteed

Try NGFR p75 (B-1): sc-271708 or NGFR p75 (H-6):

sc-55467, our highly recommended monoclonal alternatives to NGFR p75 (H-92). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see NGFR p75 (B-1): sc-271708.