

# NTR3 (N-17): sc-25053

## BACKGROUND

Neurotensin (NT) initiates an intracellular response by interacting with the G protein-coupled receptors NTR1 (NTS1 receptor, high affinity NTR) and NTR2 (NTS2 receptor, levocabastine-sensitive Neurotensin receptor), and the type I receptor NTR3 (NTS3 receptor, sortilin-1, Gp95). NT has a wide distribution in regions of the brain and in peripheral tissues where NT receptors can contribute to hypotension, hyperglycemia, hypothermia, antinociception and regulation of intestinal motility and secretion. HL-60 cells express NTR1, which can couple to  $G_q$ ,  $G_{i/o}$  or  $G_s$ . Alternative splicing of rat NTR2 can generate a 5-transmembrane domain variant isoform that is coexpressed with the full-length NTR2 throughout the brain and spinal cord. NTR3 activation in the murine microglial cell line N11 induces MIP-2, MCP-1, IL-1 $\beta$  and TNF $\alpha$  in an ERK1/2 and Akt kinase-dependent manner.

## REFERENCES

- Nielsen, M.S., et al. 1999. Sortilin/Neurotensin receptor-3 binds and mediates degradation of lipoprotein lipase. *J. Biol. Chem.* 274: 8832-8836.
- Choi, S.Y., et al. 1999. Characterization of high affinity Neurotensin receptor NTR1 in HL-60 cells and its downregulation during granulocytic differentiation. *Br. J. Pharmacol.* 126: 1050-1056.
- Navarro, V., et al. 2002. Shedding of the luminal domain of the Neurotensin receptor-3/sortilin in the HT29 cell line. *Biochem. Biophys. Res. Commun.* 298: 760-764.
- Martin, S., et al. 2003. Involvement of the Neurotensin receptor-3 in the Neurotensin-induced migration of human microglia. *J. Neurosci.* 23: 1198-1205.
- Dicou, E., et al. 2004. Neurotensin receptor-3/sortilin mediates Neurotensin-induced cytokine/chemokine expression in a murine microglial cell line. *J. Neurosci. Res.* 78: 92-99.
- Leonetti, M., et al. 2004. Specific involvement of Neurotensin type 1 receptor in the Neurotensin-mediated *in vivo* Dopamine efflux using knock-out mice. *J. Neurochem.* 89: 1-6.

## CHROMOSOMAL LOCATION

Genetic locus: SORT1 (human) mapping to 1p13.3.

## SOURCE

NTR3 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of NTR3 of mouse origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-25053 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4 $^{\circ}$  C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

NTR3 (N-17) is recommended for detection of NTR3 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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 NTR3 siRNA (h): sc-42119, NTR3 shRNA Plasmid (h): sc-42119-SH and NTR3 shRNA (h) Lentiviral Particles: sc-42119-V.

Molecular Weight (predicted) of NTR3: 92 kDa.

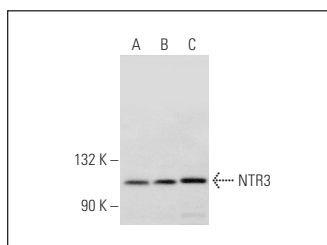
Molecular Weight (observed) of NTR3: 90-114 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, NTERA-2 cl.D1 whole cell lysate: sc-364181 or HeLa whole cell lysate: sc-2200.

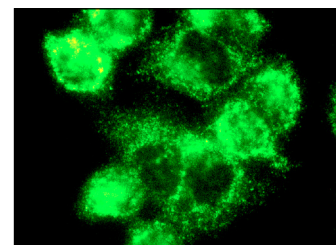
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



NTR3 (N-17): sc-25053. Western blot analysis of NTR3 expression in MCF7 (A), HeLa (B) and NTERA-2 cl.D1 (C) whole cell lysates.



NTR3 (N-17): sc-25053. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

## RESEARCH USE

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

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Try **NTR3 (G-11): sc-376561** or **NTR3 (E-9): sc-376576**, our highly recommended monoclonal alternatives to NTR3 (N-17).