

NTR1 (R-20): sc-7598

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 co-expressed 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 β and TNF α in an ERK 1/2 and Akt kinase-dependent manner.

REFERENCES

1. Nielsen, M.S., et al. 1999. Sortilin/neurotensin receptor-3 binds and mediates degradation of lipoprotein lipase. *J. Biol. Chem.* 274: 8832-8836.
2. Choi, S.Y., et al. 1999. Characterization of high affinity neurotensin receptor NTR1 in HL-60 cells and its down regulation during granulocytic differentiation. *Br. J. Pharmacol.* 126: 1050-1056.
3. 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.
4. Martin, S., et al. 2003. Involvement of the neurotensin receptor-3 in the neurotensin-induced migration of human microglia. *J. Neurosci.* 23: 1198-1205.
5. 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.
6. Leonetti, M., et al. 2004. Specific involvement of neurotensin type 1 receptor in the neurotensin-mediated *in vivo* dopamine efflux using knockout mice. *J. Neurochem.* 89: 1-6.
7. Chen, L., et al. 2004. Neurotensin depolarizes globus pallidus neurons in rats via neurotensin type-1 receptor. *Neuroscience* 125: 853-859.

CHROMOSOMAL LOCATION

Genetic locus: Ntsr1 (mouse) mapping to 2 H4.

SOURCE

NTR1 (R-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of NTR1 of rat origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-7598 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

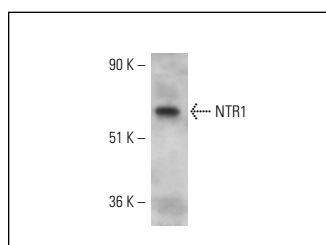
NTR1 (R-20) is recommended for detection of neurotensin receptor 1 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution 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 NTR1 siRNA (m): sc-36104, NTR1 shRNA Plasmid (m): sc-36104-SH and NTR1 shRNA (m) Lentiviral Particles: sc-36104-V.

Molecular Weight of NTR1: 52/54 kDa.

Positive Controls: mouse cerebellum extract: sc-2403.

DATA



NTR1 (R-20): sc-7598. Western blot analysis of NTR1 expression in rat cerebellum tissue extract.

SELECT PRODUCT CITATIONS

1. Debaigt, C., et al. 2004. Crucial role of neuron-enriched endosomal protein of 21 kDa in sorting between degradation and recycling of internalized G protein-coupled receptors. *J. Biol. Chem.* 279: 35687-35691.
2. Coppola, T., et al. 2008. Neurotensin protects pancreatic β cells from apoptosis. *Int. J. Biochem. Cell Biol.* 40: 2296-2302.
3. Milovnik, P., et al. 2009. Selection and characterization of DARPin specific for the neurotensin receptor 1. *Protein Eng. Des. Sel.* 22: 357-366.

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.

MONOS
Satisfaction
Guaranteed

Try **NTR1 (B-9): sc-374492**, our highly recommended monoclonal alternative to NTR1 (R-20).