NTR2 (K-17): sc-25051

SANTA CRUZ
BIOTECHNOLOGY

The Power to Question

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-1β and TNFα in an ERK1/2 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.

8. Liu, F., et al. 2004. Neurotensin negatively modulates Akt activity in neurotensin receptor-1-transfected AV12 cells. J. Cell. Biochem. 92: 603-611.

CHROMOSOMAL LOCATION

Genetic locus: NTSR2 (human) mapping to 2p25.1; Ntsr2 (mouse) mapping to 12 A1.1.

SOURCE

NTR2 (K-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of NTR2 of mouse origin.

STORAGE

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

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-25051 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NTR2 (K-17) is recommended for detection of NTR2 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 NTR2 siRNA (m): sc-44484.

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) 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.

RESEARCH USE

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

PROTOCOLS

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