

NTR1 (B-12): sc-376958

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). Neurotensin has a wide distribution in regions of the brain and in peripheral tissues where neurotensin 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 five-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 ERK1/2- and Akt kinase-dependent manner.

CHROMOSOMAL LOCATION

Genetic locus: NTSR1 (human) mapping to 20q13.33; Ntsr1 (mouse) mapping to 2 H4.

SOURCE

NTR1 (B-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 389-417 at the C-terminus of NTR1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-376958 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

NTR1 (B-12) is recommended for detection of NTR1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (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 (h): sc-36103, NTR1 siRNA (m): sc-36104, NTR1 shRNA Plasmid (h): sc-36103-SH, NTR1 shRNA Plasmid (m): sc-36104-SH, NTR1 shRNA (h) Lentiviral Particles: sc-36103-V and NTR1 shRNA (m) Lentiviral Particles: sc-36104-V.

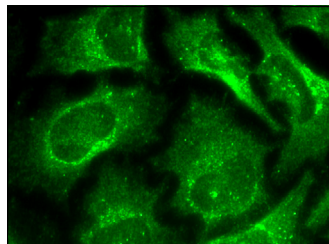
Molecular Weight of NTR1 glycosylation: 52/54 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, T98G cell lysate: sc-2294 or mouse cerebellum extract: sc-2403.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohisto-mount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



NTR1 (B-12): sc-376958. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Riehle, K.J., et al. 2019. Neurotensin as a source of cyclic AMP and co-mitogen in fibrolamellar hepatocellular carcinoma. *Oncotarget* 10: 5092-5102.
2. Morgat, C., et al. 2021. Expression of neurotensin receptor-1 (NTS1) in primary breast tumors, cellular distribution, and association with clinical and biological factors. *Breast Cancer Res. Treat.* 190: 403-413.
3. Hahn, S., et al. 2023. Proximal dendritic localization of NALCN channels underlies tonic and burst firing in nigral dopaminergic neurons. *J. Physiol.* 601: 171-193.

RESEARCH USE

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

PROTOCOLS

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