

NTR1 (B-9): sc-374492

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.

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.

CHROMOSOMAL LOCATION

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

SOURCE

NTR1 (B-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 395-423 at the C-terminus of NTR1 of rat 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-374492 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

NTR1 (B-9) 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) 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.

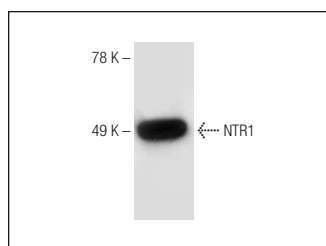
Molecular Weight of NTR1 glycosylation: 52/54 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409 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.

DATA



NTR1 (B-9): sc-374492. Western blot analysis of NTR1 expression in IMR-32 whole cell lysate.

SELECT PRODUCT CITATIONS

- Hiradate, Y., et al. 2014. Neurotensin enhances sperm capacitation and acrosome reaction in mice. *Biol. Reprod.* 91: 53.
- Umezumi, K., et al. 2016. Exogenous neurotensin modulates sperm function in Japanese black cattle. *J. Reprod. Dev.* 62: 409-414.
- Li, J., et al. 2016. An obligatory role for neurotensin in high-fat-diet-induced obesity. *Nature* 533: 411-415.
- Xiao, Y., et al. 2018. Neurotensin contributes to pediatric intestinal failure-associated liver disease via regulating intestinal bile acids uptake. *EBioMedicine* 35: 133-141.
- Woodworth, H.L., et al. 2018. Identification of neurotensin receptor expressing cells in the ventral tegmental area across the lifespan. *eNeuro* 5: ENEURO.0191-17.2018.

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.

PROTOCOLS

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