SANTA CRUZ BIOTECHNOLOGY, INC.

NTR3 (G-11): sc-376561

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.

CHROMOSOMAL LOCATION

Genetic locus: SORT1 (human) mapping to 1p13.3; Sort1 (mouse) mapping to 3 F3.

SOURCE

NTR3 (G-11) is a mouse monoclonal antibody raised against amino acids 78-377 mapping within an extracellular domain of NTR3 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NTR3 (G-11) is available conjugated to agarose (sc-376561 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-376561 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376561 PE), fluorescein (sc-376561 FITC), Alexa Fluor® 488 (sc-376561 AF488), Alexa Fluor® 546 (sc-376561 AF546), Alexa Fluor® 594 (sc-376561 AF594) or Alexa Fluor® 647 (sc-376561 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376561 AF680) or Alexa Fluor® 790 (sc-376561 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

NTR3 (G-11) is recommended for detection of NTR3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

NTR3 (G-11) is also recommended for detection of NTR3 in additional species, including equine.

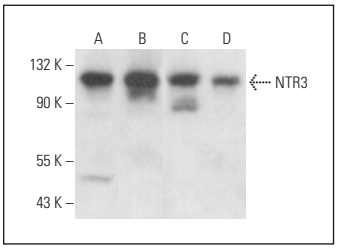
Suitable for use as control antibody for NTR3 siRNA (h): sc-42119, NTR3 siRNA (m): sc-42120, NTR3 siRNA (r): sc-156020, NTR3 shRNA Plasmid (h): sc-42119-SH, NTR3 shRNA Plasmid (m): sc-42120-SH, NTR3 shRNA Plasmid (r): sc-156020-SH, NTR3 shRNA (h) Lentiviral Particles: sc-42119-V, NTR3 shRNA (m) Lentiviral Particles: sc-42120-V and NTR3 shRNA (r) Lentiviral Particles: sc-156020-V.

Molecular Weight (predicted) of NTR3: 92 kDa.

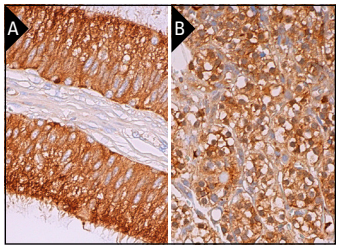
Molecular Weight (observed) of NTR3: 90-114 kDa.

Positive Controls: SW480 cell lysate: sc-2219, 3T3-L1 cell lysate: sc-2243 or SK-N-SH cell lysate: sc-2410.

DATA



NTR3 (G-11): sc-376561. Western blot analysis of NTR3 expression in SW480 (**A**), NTERA-2 cl.D1 (**B**), SK-N-SH (**C**) and 3T3-L1 (**D**) whole cell lysates.



NTR3 (G-11): sc-376561. Immunoperoxidase staining of formalin fixed, paraffin-embedded human epididymis tissue showing cytoplasmic and membrane staining of glandular cells (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human parathyroid gland tissue showing cytoplasmic and nuclear staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Kim, M.J., et al. 2018. Acid ceramidase inhibition ameliorates α-synuclein accumulation upon loss of GBA1 function. Hum. Mol. Genet. 27: 1972-1988.
2. Takahashi, K., et al. 2021. Progranulin deficiency in Iba-1$^+$ myeloid cells exacerbates choroidal neovascularization by perturbation of lysosomal function and abnormal inflammation. J. Neuroinflammation 18: 164.
3. Lin, X.H., et al. 2023. Six immune-related promising biomarkers may promote hepatocellular carcinoma prognosis: a bioinformatics analysis and experimental validation. Cancer Cell Int. 23: 52.

RESEARCH USE

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