

# Neurotensin (E-5): sc-377503

## BACKGROUND

The Neurotensin precursor (also known as Pro-NT/NMN) is a 170 amino acid protein that is cleaved at carboxy terminal dibasic residues by prohormone convertase to generate three processed peptides, designated Neurotensin (NT), Neuromedin N (also known as NMN) and large Neuromedin N (also known as NMN-125). The Neurotensin precursor is processed in the central nervous system and in the intestine to generate the 13 amino acid processed Neurotensin peptide. While the processed Neurotensin peptide functions as a neurotransmitter to modulate dopaminergic signaling pathways in the brain, it acts as a parahormone that may contribute to the growth of human colon cancers in the gut. The processed peptides Neurotensin and Neuromedin N bind to the G protein-coupled Neurotensin receptor (NTR), resulting in the hydrolysis of phosphatidylinositols and the mobilization of calcium.

## CHROMOSOMAL LOCATION

Genetic locus: NTS (human) mapping to 12q21.31.

## SOURCE

Neurotensin (E-5) is a mouse monoclonal antibody raised against amino acids 1-170 representing full length Neurotensin of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Neurotensin (E-5) is available conjugated to agarose (sc-377503 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377503 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377503 PE), fluorescein (sc-377503 FITC), Alexa Fluor® 488 (sc-377503 AF488), Alexa Fluor® 546 (sc-377503 AF546), Alexa Fluor® 594 (sc-377503 AF594) or Alexa Fluor® 647 (sc-377503 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377503 AF680) or Alexa Fluor® 790 (sc-377503 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

Neurotensin (E-5) is recommended for detection of Neurotensin of 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Neurotensin siRNA (h): sc-42115, Neurotensin shRNA Plasmid (h): sc-42115-SH and Neurotensin shRNA (h) Lentiviral Particles: sc-42115-V.

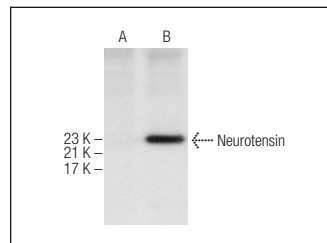
Molecular Weight of Neurotensin: 20 kDa.

Positive Controls: MIA PaCa-2 cell lysate: sc-2285, Caki-1 cell lysate: sc-2224 or human Neurotensin transfected HEK293T whole cell lysate.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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 A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



Neurotensin (E-5): sc-377503. Western blot analysis of Neurotensin expression in non-transfected (A) and human Neurotensin transfected (B) HEK293T whole cell lysates.

## SELECT PRODUCT CITATIONS

- Vasiadi, M., et al. 2013. Neurotensin serum levels and skin gene expression are increased in atopic dermatitis. *Br. J. Dermatol.* 169: 695-699.
- Zhu, R., et al. 2018. Neuroendocrine differentiation contributes to radioreistance development and metastatic potential increase in non-small cell lung cancer. *Biochim. Biophys. Acta Mol. Cell Res.* 1865: 1878-1890.
- Zhang, T., et al. 2020. APC mutations in human colon lead to decreased neuroendocrine maturation of ALDH<sup>+</sup> stem cells that alters GLP-2 and SST feedback signaling: Clue to a link between WNT and retinoic acid signalling in colon cancer development. *PLoS ONE* 15: e0239601.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

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