# SANTA CRUZ BIOTECHNOLOGY, INC.

# NTT5 (C-20): sc-139019



The Power to Question

#### BACKGROUND

NTT5, also known as SLC6A16 (solute carrier family 6 member 16), is a 736 amino acid multi-pass membrane protein that belongs to the sodium:neurotransmitter symporter (SNF) family and the SLC6A16 subfamily. NTT5 is highly expressed in peripheral tissues, particularly in testis, pancreas and prostate. Showing structural characteristics of a Na<sup>+</sup>- and Cl<sup>-</sup>-dependent neurotransmitter transporter, NTT5 consists of 12 transmembrane domains, intracellular N and C termini and large extracellular loops containing multiple N-glycosylation sites. The gene that encodes NTT5 consists of approximately 35,586 bases and maps to human chromosome 19q13. Chromosome 19 consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes. It is the genetic home for a number of immunoglobulin (Ig) superfamily members, including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG families and Fc receptors (FcRs).

#### REFERENCES

- Olsen, A., et al. 1994. Gene organization of the pregnancy-specific glycoprotein region on human chromosome 19: assembly and analysis of a 700-kb cosmid contig spanning the region. Genomics 23: 659-668.
- Teglund, S., et al. 1994. The pregnancy-specific glycoprotein (PSG) gene cluster on human chromosome 19: fine structure of the 11 PSG genes and identification of 6 new genes forming a third subgroup within the carcinoembryonic antigen (CEA) family. Genomics 23: 669-684.
- Wang, L., et al. 2000. C-CAM1, a candidate tumor suppressor gene, is abnormally expressed in primary lung cancers. Clin. Cancer Res. 6: 2988-2993.
- Farmer, M.K., et al. 2000. Cloning and characterization of human NTT5 and v7-3: two orphan transporters of the Na<sup>+</sup>/Cl<sup>-</sup> -dependent neurotransmitter transporter gene family. Genomics 70: 241-252.
- 5. Trowsdale, J., et al. 2001. The genomic context of natural killer receptor extended gene families. Immunol. Rev. 181: 20-38.
- 6. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 607972. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Le Meur, N., et al. 2004. Complete germline deletion of the STK11 gene in a family with Peutz-Jeghers syndrome. Eur. J. Hum. Genet. 12: 415-418.
- 8. Leeb, T., et al. 2004. Comparative human-mouse-rat sequence analysis of the ICAM gene cluster on HSA 19p13.2 and a 185-kb porcine region from SSC 2q. Gene 343: 239-244.
- Barrow, A.D., et al. 2008. The extended human leukocyte receptor complex: diverse ways of modulating immune responses. Immunol. Rev. 224: 98-123.

#### CHROMOSOMAL LOCATION

Genetic locus: SLC6A16 (human) mapping to 19q13.33.

# **STORAGE**

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

#### SOURCE

NTT5 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of NTT5 of human origin.

## PRODUCT

Each vial contains 200  $\mu g$  IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-139019 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **APPLICATIONS**

NTT5 (C-20) is recommended for detection of NTT5 of human 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); non cross-reactive with other SLC6 family members.

Suitable for use as control antibody for NTT5 siRNA (h): sc-97829, NTT5 shRNA Plasmid (h): sc-97829-SH and NTT5 shRNA (h) Lentiviral Particles: sc-97829-V.

Molecular Weight of NTT5: 82 kDa.

#### **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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluo-rescence: 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<sup>™</sup> 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.