

# NETO2 (3E3): sc-517104

## BACKGROUND

NETO2 (neuropilin (NRP) and tolloid (TLL)-like 2), also known as BTCL2 (brain-specific transmembrane protein containing 2 CUB and one LDL-receptor class A domains protein 2), is a 525 amino acid single-pass type I membrane protein that contains 2 CUB domains and one LDL-receptor class A domain. Expressed as multiple alternatively spliced isoforms, NETO2 is thought to play a role in the development and maintenance of neuronal circuitry, possibly playing a role in proper brain function. The gene encoding NETO2 maps to human chromosome 16, which is associated with a variety of genetic disorders, encodes over 900 genes and comprises nearly 3% of the human genome. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is associated with chromosome 16, as is Crohn's disease, which is a gastrointestinal inflammatory condition.

## REFERENCES

1. Gilbert, F. 1999. Disease genes and chromosomes: disease maps of the human genome. *Chromosome 16. Genet. Test.* 3: 243-254.
2. Stöhr, H., et al. 2002. A novel gene encoding a putative transmembrane protein with two extracellular CUB domains and a low-density lipoprotein class A module: isolation of alternatively spliced isoforms in retina and brain. *Gene* 286: 223-231.
3. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 607974. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Demir, E., et al. 2005. Giant axonal neuropathy: clinical and genetic study in six cases. *J. Neurol. Neurosurg. Psychiatr.* 76: 825-832.
5. Rakha, E.A., et al. 2006. Chromosome 16 tumor-suppressor genes in breast cancer. *Genes Chromosomes Cancer* 45: 527-535.
6. Zhang, W., et al. 2009. A transmembrane accessory subunit that modulates kainate-type glutamate receptors. *Neuron* 61: 385-396.

## CHROMOSOMAL LOCATION

Genetic locus: NETO2 (human) mapping to 16q12.1; Neto2 (mouse) mapping to 8 C3.

## SOURCE

NETO2 (3E3) is a mouse monoclonal antibody raised against amino acids 426-525 representing partial length NETO2 of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## APPLICATIONS

NETO2 (3E3) is recommended for detection of NETO2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

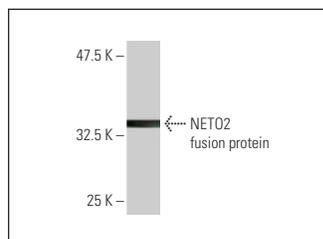
Suitable for use as control antibody for NETO2 siRNA (h): sc-75903, NETO2 siRNA (m): sc-75904, NETO2 shRNA Plasmid (h): sc-75903-SH, NETO2 shRNA Plasmid (m): sc-75904-SH, NETO2 shRNA (h) Lentiviral Particles: sc-75903-V and NETO2 shRNA (m) Lentiviral Particles: sc-75904-V.

Molecular Weight of NETO2: 59 kDa.

## 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, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

## DATA



NETO2 (3E3): sc-517104. Western blot analysis of human recombinant NETO2 fusion protein.

## 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.