

NETO2 (K-20): sc-82249

BACKGROUND

NETO2 (neuropilin (NRP) and tolloid (TLL)-like 2), also known as BTCL2 (brain-specific transmembrane protein containing 2 CUB and 1 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 alter-natively 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 (K-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NETO2 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-82249 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

NETO2 (K-20) 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)], 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 family member NETO1.

NETO2 (K-20) is also recommended for detection of NETO2 in additional species, including equine and porcine.

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.

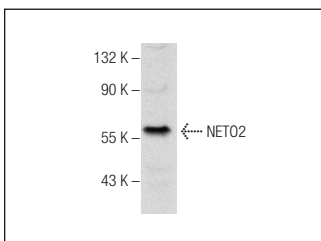
Molecular Weight of NETO2: 59 kDa.

Positive Controls: SH-SY5Y cell lysate: sc-3812.

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™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), 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). 3) Immunofluorescence: 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™ Mounting Medium: sc-24941.

DATA



NETO2 (K-20): sc-82249. Western blot analysis of NETO2 expression in SH-SY5Y whole cell lysate.

STORAGE

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

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Try **NETO2 (3E3): sc-517104**, our highly recommended monoclonal alternative to NETO2 (K-20).