



Neurexophilin-2 (D-16): sc-66475

BACKGROUND

Neurexophilin-1 (also known as NPH1 or NXPH1), Neurexophilin-2 (also known as NPH2 or NXPH2) and Neurexophilin-3 (also known as NPH3 or NXPH3) are members of the Neurexophilin family (Neurexophilin-1-4) of neuropeptide-like glycoproteins that are proteolytically processed after synthesis. Neurexophilin-1-3 are secreted proteins that are thought to function as signaling molecules which specifically bind to target proteins, such as neurexin α (a protein that promotes adhesion between dendrites and axons), and are essential for proper neurotransmitter release. While Neurexophilin-1 is located primarily in spleen tissue, Neurexophilin-2 is expressed primarily in kidney and both Neurexophilin-2 and Neurexophilin-3 are highly expressed in brain. Defects in the gene encoding Neurexophilin-1 may be associated with schizophrenia, a mental disorder characterized by an abnormal perception of reality.

REFERENCES

- Petrenko, A.G., Ullrich, B., Missler, M., Krasnoperov, V., Rosahl, T.W. and Südhof, T.C. 1996. Structure and evolution of Neurexophilin. *J. Neurosci.* 16: 4360-4369.
- Missler, M., Hammer, R.E. and Südhof, T.C. 1998. Neurexophilin binding to α -neurexins. A single LNS domain functions as an independently folding ligand-binding unit. *J. Biol. Chem.* 273: 34716-34723.
- Missler, M. and Südhof, T.C. 1998. Neurexophilins form a conserved family of neuropeptide-like glycoproteins. *J. Neurosci.* 18: 3630-3638.
- Clarris, H.J., McKeown, S. and Key, B. 2002. Expression of neurexin ligands, the neuroligins and the Neurexophilins, in the developing and adult rodent olfactory bulb. *Int. J. Dev. Biol.* 46: 649-652.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 604635. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Nussbaum, J., Xu, Q., Payne, T.J., Ma, J.Z., Huang, W., Gelernter, J. and Li, M.D. 2008. Significant association of the neurexin-1 gene (NRXN1) with nicotine dependence in European- and African-American smokers. *Hum. Mol. Genet.* 17: 1569-1577.
- Kang, Y., Zhang, X., Dobie, F., Wu, H. and Craig, A.M. 2008. Induction of GABAergic postsynaptic differentiation by α -neurexins. *J. Biol. Chem.* 283: 2323-2334.

CHROMOSOMAL LOCATION

Genetic locus: *Nxph2* (mouse) mapping to 2 A3.

STORAGE

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

SOURCE

Neurexophilin-2 (D-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Neurexophilin-2 of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-66475 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Neurexophilin-2 (D-16) is recommended for detection of Neurexophilin-2 of mouse 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).

Suitable for use as control antibody for Neurexophilin-2 siRNA (m): sc-62678.

Molecular Weight of Neurexophilin-2: 30 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™ 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) 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.

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.