

Neurexophilin-4 (D-14): sc-139013

BACKGROUND

Members of the Neurexophilin family are neuropeptide-like glycoproteins that undergo proteolytic processing after synthesis. As secreted proteins, Neurexophilins are thought to function as signaling molecules which specifically bind to target proteins, such as neuexin α (a protein that promotes adhesion between dendrites and axons), and are essential for proper neurotransmitter release. Neurexophilins contain five common domains including a variable N-terminal domain, a highly conserved N-glycosylated central domain, a short linker region and a cysteine-rich conserved C-terminal domain. Neurexophilin-4, also known as NXPH4 or NPH4, is a 308 amino acid secreted protein belonging to the neurexophilin family. Neurexophilin-4 is expressed in brain, spleen and testis, and is encoded by a gene which maps to human chromosome 12q13.3.

REFERENCES

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- Missler, M. and Südhof, T.C. 1998. Neurexophilins form a conserved family of neuropeptide-like glycoproteins. *J. Neurosci.* 18: 3630-3638.
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- Clariss, H.J., McKeown, S. and Key, B. 2002. Expression of neuexin ligands, the neuroligins and the neurexophilins, in the developing and adult rodent olfactory bulb. *Int. J. Dev. Biol.* 46: 649-652.

CHROMOSOMAL LOCATION

Genetic locus: NXPH4 (human) mapping to 12q13.3; Nxph4 (mouse) mapping to 10 D3.

SOURCE

Neurexophilin-4 (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Neurexophilin-4 of human 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-139013 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Neurexophilin-4 (D-14) is recommended for detection of Neurexophilin-4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 Neurexophilin-1, Neurexophilin-2 or Neurexophilin-3.

Neurexophilin-4 (D-14) is also recommended for detection of Neurexophilin-4 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Neurexophilin-4 siRNA (h): sc-95870, Neurexophilin-4 siRNA (m): sc-149928, Neurexophilin-4 shRNA Plasmid (h): sc-95870-SH, Neurexophilin-4 shRNA Plasmid (m): sc-149928-SH, Neurexophilin-4 shRNA (h) Lentiviral Particles: sc-95870-V and Neurexophilin-4 shRNA (m) Lentiviral Particles: sc-149928-V.

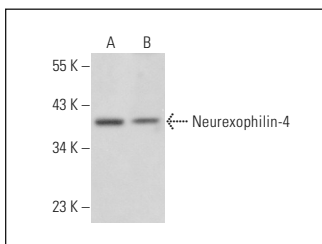
Molecular Weight of Neurexophilin-4: 33 kDa.

Positive Controls: U-251-MG whole cell lysate: sc-364176 or 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



Neurexophilin-4 (D-14): sc-139013. Western blot analysis of Neurexophilin-4 expression in U-251-MG (A) and SH-SY5Y (B) whole cell lysates.

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.