

neurexin I α (N-16): sc-14332

BACKGROUND

Neurexins comprise a family of neuronal cell surface proteins, which include neurexin I (NRXN1), neurexin II (NRXN2), neurexin III (NRXN3) and CASPR (neurexin IV). Neurexins I-III are expressed as α and β isoforms. The α isoforms are made of three cassettes, which contain two LNS (Laminin A, neurexins, sex hormone-binding)-domains separated by EGF domains, followed by a transmembrane region and a 55 amino acid cytoplasmic C-terminal. The α isoforms bind to neuroligins at the second LNS site and to the excitatory neurotoxin α -latrotoxin. The β isoforms have only one LNS-domain, bind to neuroligins, and play a role in the formation and remodeling of synapses. CASPR (for contactin-associated protein 1, also designated paranodin in mouse), contains an extracellular domain similar to the other three neurexins, and binds to the surface glycoprotein contactin. CASPR and the closely related CASPR2, a mammalian homolog of *Drosophila* neurexin IV (Nrx-IV), demarcate distinct subdomains in myelinated axons. Specifically, CASPR exists at the paranodal junctions, while CASPR2 colocalizes with Shaker-like K⁺ channels in the juxtaparanodal region. CASPR may play a role in the communication of glial cells and neurons during development.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: NRXN1 (human) mapping to 2p16.3; Nrxn1 (mouse) mapping to 17 E5.

SOURCE

neurexin I α (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of neurexin I α 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-14332 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

neurexin I α (N-16) is recommended for detection of neurexin I α of mouse, rat and 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).

neurexin I α (N-16) is also recommended for detection of neurexin I α in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for neurexin I siRNA (h): sc-42050, neurexin I siRNA (m): sc-42051, neurexin I shRNA Plasmid (h): sc-42050-SH, neurexin I shRNA Plasmid (m): sc-42051-SH, neurexin I shRNA (h) Lentiviral Particles: sc-42050-V and neurexin I shRNA (m) Lentiviral Particles: sc-42051-V.

Molecular Weight of neurexin I α : 165 kDa.

Positive Controls: P19 cell lysate: sc-24760.

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.

STORAGE

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

RESEARCH USE

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



Try **neurexin I α (17): sc-136001**, our highly recommended monoclonal alternative to neurexin I α (N-16).