

neuroigin X/Y (E-20): sc-50137

BACKGROUND

Neuroigins are a family of plasma membrane proteins that possess an N-terminal hydrophobic sequence, a large esterase homology domain, a single transmembrane region and a short cytoplasmic domain. Neuroigins are expressed in excitatory, synaptic clefts and play a role in the formation and remodeling of CNS synapses by binding to β -neurexins, a family of neuronal cell surface proteins. Neuroigins also bind to PSD-95, which may recruit ion channels and neurotransmitter receptors to the synapse. A single-copy X-degenerate gene within the male-specific region of chromosome Y (MSY), which is not involved in X-Y crossover events, encodes neuroigin X/Y (NLGN4Y). Neuroigin X/Y and its X-linked homolog, NLGN4, contain all amino acids essential for neuroigin function, including the cysteines, the transmembrane domain and the PDZ-binding domain. Expression of NLGN4 and neuroigin X/Y is observed in all male brain regions examined, while female brain tissue only demonstrates NLGN4 expression.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: NLGN4X (human) mapping to Xp22.32, NLGN4Y (human) mapping to Yq11.221.

SOURCE

neuroigin X/Y (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of neuroigin X/Y 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-50137 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

neuroigin X/Y (E-20) is recommended for detection of neuroigin X/Y of 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).

neuroigin X/Y (E-20) is also recommended for detection of neuroigin X/Y in additional species, including equine, canine and porcine.

Suitable for use as control antibody for neuroigin X/Y siRNA (h): sc-61186, neuroigin X/Y shRNA Plasmid (h): sc-61186-SH and neuroigin X/Y shRNA (h) Lentiviral Particles: sc-61186-V.

Molecular Weight of neuroigin X/Y: 92 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.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.