

neuroigin 3 (L-15): sc-14091

BACKGROUND

Neuroigins are a family of plasma membrane proteins that possess an N-terminal hydrophobic domain, a large esterase homology domain, a single transmembrane region, a short cytoplasmic domain, and an EF-hand binding domain. Members of the neuroigin family include neuroigin 1, neuroigin 2 and neuroigin 3. Neuroigins are expressed in excitatory neuronal synaptic clefts. Neuroigins play a role in the formation and remodeling of CNS synapses by binding to β -neurexins, a family of neuronal cell surface proteins. Neurexin 1 β binds to the EF-hand domain of neuroigin 1 and requires calcium ion. Neuroigins also bind to PSD-95, which may recruit ion channels and neurotransmitter receptors to the synapses.

REFERENCES

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2. Nguyen, T. and Sudhof, T.C. 1997. Binding properties of neuroigin 1 and neurexin 1 β reveal fuction as heterophilic cell adhesion molecules. *J. Biol. Chem.* 272: 26032-26039.
3. Irie, M., et al. 1997. Binding of neuroigin to PSD-95. *Science* 277: 1511-1515.
4. Song, J.Y., et al. 1999. Neuroigin 1 is a postsynaptic cell-adhesion molecule of excitatory synapses. *Proc. Natl. Acad. Sci. USA* 96: 1100-1105.
5. Tsigelny, I., et al. 2000. Common EF-hand motifs in cholinesterases and neuroigins suggest a role for Ca²⁺ binding in cell surface associations. *Protein Sci.* 9: 180-185.
6. Philibert R.A., et al. 2000. The structure and expression of the human neuroigin 3 gene. *Gene* 246: 303-310.
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CHROMOSOMAL LOCATION

Genetic locus: NLGN3 (human) mapping to Xq13.1; Nlgn3 (mouse) mapping to X D.

SOURCE

neuroigin 3 (L-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of neuroigin 3 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-14091 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

neuroigin 3 (L-15) is recommended for detection of neuroigin 3 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

neuroigin 3 (L-15) is also recommended for detection of neuroigin 3 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for neuroigin 3 siRNA (h): sc-42087, neuroigin 3 siRNA (m): sc-42088, neuroigin 3 shRNA Plasmid (h): sc-42087-SH, neuroigin 3 shRNA Plasmid (m): sc-42088-SH, neuroigin 3 shRNA (h) Lentiviral Particles: sc-42087-V and neuroigin 3 shRNA (m) Lentiviral Particles: sc-42088-V.

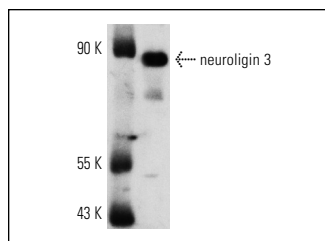
Molecular Weight of neuroigin 3: 88 kDa.

Positive Controls: BC₃H1 cell lysate: sc-2299.

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



neuroigin 3 (L-15): sc-14091. Western blot analysis of neuroigin 3 expression in BC₃H1 whole cell lysate.

RESEARCH USE

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

MONOS
Satisfaction
Guaranteed

Try **neuroigin 3 (C-3): sc-137052** or **neuroigin 3 (G-2): sc-271880**, our highly recommended monoclonal alternatives to neuroigin 3 (L-15).