Neuroligins 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 neuroligin family include neuroligin 1, neuroligin 2 and neuroligin 3. Neuroligins are expressed in excitatory neuronal synaptic clefts. Neuroligins play a role in the formation and remodeling of CNS synapses by binding to β-neurexins, a family of neuronal cell surface proteins. Neuroxin 1 binds to the EF-hand domain of neuroligin 1 and requires calcium ion. Neuroligins also bind to PSD-95, which may recruit ion channels and neurotransmitter receptors to the synapses.

**REFERENCES**


**APPLICATIONS**

neuroligin 1 (F-5) is recommended for detection of neuroligin 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg 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).

Suitable for use as control antibody for neuroligin 1 siRNA (h): sc-42083, neuroligin 1 siRNA (m): sc-42084, neuroligin 1 siRNA (r): sc-156002, neuroligin 1 shRNA Plasmid (h): sc-42083-SH, neuroligin 1 shRNA Plasmid (m): sc-42084-SH, neuroligin 1 shRNA Plasmid (r): sc-156002-SH, neuroligin 1 shRNA (h) Lentiviral Particles: sc-42083-V, neuroligin 1 shRNA (m) Lentiviral Particles: sc-42084-V and neuroligin 1 shRNA (r) Lentiviral Particles: sc-156002-V.

Molecular Weight of neuroligin 1: 101 kDa.

Positive Controls: neuroligin 1 (h): 293T Lysate: sc-115314, rat cerebellum extract: sc-2398 or HeLa whole cell lysate: sc-2200.

**RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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 goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

**SOURCE**

neuroligin 1 (F-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 33-61 near the N-terminus of neuroligin 1 of rat origin.

**PRODUCT**

Each vial contains 200 µg IgG1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-365111 P, (100 µg 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.