SANTA CRUZ BIOTECHNOLOGY, INC.

# Neurabin-II (S-20): sc-14773

## BACKGROUND

Neurabin-II, also called spinophilin, interacts with actin and PP-1 in dendritic spines of the central nervous system. The gene encoding human neurabin-II maps to chromosome 17q21.33. The structural characteristics of neurabin-II include one F-actin binding domain at the N-terminal region, a predicted coiled-coil struture at the C-terminal, one PDZ domain at the middle region, and a domain known to interact with transmembrane proteins. Neurabin-II bundles actin fliaments *in vitro. In vivo,* spinophilin localizes to the cortical sites of actin filaments and to the sites of active membrane remodelling. Neurabin-II also forms a complex with the catalytic subunit of PP1 and modulates PP1 enzymatic activity *in vitro.* Neurabin-II localizes to the head of dendritic spines and aids in the ability of PP-1 to regulate the activity of a-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid (AMPA) and N-methyl-D-asparate (NMDA) receptors. In this manner, neurabin-II modulates both glutamatergic synaptic transmission and dendritic morphology. Synergistic interactions between spinophilin and human tumor supressor ARF suggest a role for neurabin-II in cell growth.

## CHROMOSOMAL LOCATION

Genetic locus: PPP1R9B (human) mapping to 17q21.33; Ppp1r9b (mouse) mapping to 11 D.

## SOURCE

Neurabin-II (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Neurabin-II of rat origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-14773 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Neurabin-II (S-20) is recommended for detection of Neurabin-II of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

Neurabin-II (S-20) is also recommended for detection of Neurabin-II in additional species, including canine and porcine.

Suitable for use as control antibody for Neurabin-II siRNA (h): sc-43962, Neurabin-II siRNA (m): sc-149924, Neurabin-II shRNA Plasmid (h): sc-43962-SH, Neurabin-II shRNA Plasmid (m): sc-149924-SH, Neurabin-II shRNA (h) Lentiviral Particles: sc-43962-V and Neurabin-II shRNA (m) Lentiviral Particles: sc-149924-V.

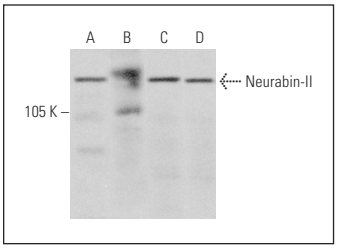
Molecular Weight of Neurabin-II: 140 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, mouse brain extract: sc-2253 or mouse cerebellum extract: sc-2403.

## 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




Neurabin-II (S-20): sc-14773. Western blot analysis of Neurabin-II expression in IMR-32 (**A**) and SH-SY5Y (**B**) whole cell lysates and mouse cerebellum (**C**) and mouse brain (**D**) tissue extracts.

## 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.