

Neurogranin (H-50): sc-50401

BACKGROUND

Neurogranin (formerly designated p17, also known as RC3 and BICKS) is a neuron-specific substrate for protein kinase C (PKC). Neurogranin is a postsynaptic protein that is highly enriched in brain, with restricted expression in the cortex, striatum, hippocampus, thalamus, hypothalamus and olfactory bulb nuclei. Neurogranin binds calmodulin at low levels of calcium, thereby regulating calmodulin-dependent nitric oxide synthase. Conversely, nitric oxide modifies Neurogranin, reducing its ability to bind calmodulin or to be phosphorylated by PKC. This phosphorylation site domain is adjacent to the predicted calmodulin-binding region.

REFERENCES

1. Baudier, J., et al. 1989. Protein kinase C substrates from bovine brain. Purification and characterization of Neuromodulin, a neuron-specific calmodulin-binding protein. *J. Biol. Chem.* 264: 1824-1828.
2. Watson, J.B., et al. 1990. Subtractive cDNA cloning of RC3, a rodent cortex-enriched mRNA encoding a novel 78 residue protein. *J. Neurosci. Res.* 26: 397-408.

CHROMOSOMAL LOCATION

Genetic locus: NRGN (human) mapping to 11q24.2; Nrgn (mouse) mapping to 9 A4.

SOURCE

Neurogranin (H-50) is a rabbit polyclonal antibody raised against amino acids 1-50 mapping at the N-terminus of Neurogranin of human origin.

PRODUCT

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

APPLICATIONS

Neurogranin (H-50) is recommended for detection of Neurogranin 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); may cross-react with Neuromodulin.

Neurogranin (H-50) is also recommended for detection of Neurogranin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Neurogranin siRNA (h): sc-42074, Neurogranin siRNA (m): sc-42075, Neurogranin shRNA Plasmid (h): sc-42074-SH, Neurogranin shRNA Plasmid (m): sc-42075-SH, Neurogranin shRNA (h) Lentiviral Particles: sc-42074-V and Neurogranin shRNA (m) Lentiviral Particles: sc-42075-V.

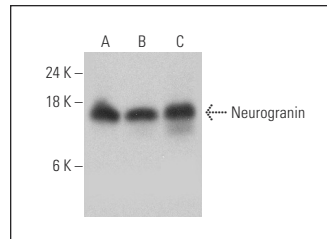
Molecular Weight of Neurogranin: 17-18 kDa.

Positive Controls: rat brain extract: sc-2392, mouse brain extract: sc-2253 or human cerebral cortex tissue extract.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Neurogranin (H-50): sc-50401. Western blot analysis of Neurogranin expression in mouse brain (A), rat brain (B) and human cerebral cortex (C) 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.


 MONOS
Satisfation
Guaranteed

Try **Neurogranin (C-7): sc-515092** or **Neurogranin (H-6): sc-514922**, our highly recommended monoclonal alternatives to Neurogranin (H-50).