

Neurogranin (F-15): sc-18336

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.

CHROMOSOMAL LOCATION

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

SOURCE

Neurogranin (F-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region 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.

Blocking peptide available for competition studies, sc-18336 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.

RESEARCH USE

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

APPLICATIONS

Neurogranin (F-15) 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).

Neurogranin (F-15) 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.

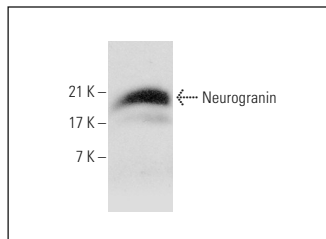
Molecular Weight of Neurogranin: 17-18 kDa.

Positive Controls: rat brain extract: sc-2392.

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



Neurogranin (F-15): sc-18336. Western blot analysis of Neurogranin expression in rat brain tissue extract.

SELECT PRODUCT CITATIONS

1. Laterza, O.F., et al. 2006. Identification of novel brain biomarkers. Clin. Chem. 52: 1713-1721.
2. Lederer, C.W., et al. 2007. Pathways and genes differentially expressed in the motor cortex of patients with sporadic amyotrophic lateral sclerosis. BMC Genomics 8: 26.

PROTOCOLS

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

MONOS
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Try **Neurogranin (C-7): sc-515092** or **Neurogranin (H-6): sc-514922**, our highly recommended monoclonal alternatives to Neurogranin (F-15).