# neuroguidin (C-15): sc-243606



The Power to Overtin

#### **BACKGROUND**

Neuroguidin (NGD), also known as elF4E-binding protein, NGDN, LCP5 or lpd-2, is a 315 amino acid protein that interacts with elF4E and CPEB, and plays a role in cytoplasmic polyadenylation element (CPE)-containing mRNA translational repression. A member of the SAS10 family, neuroguidin exists as two alternatively spliced isoforms and localizes to cytoplasm, nucleus and cell projections of axons, dendrites and filopodia. Neuroguidin may play a role in the development of the vertebrate nervous system via transcriptional regulation. Neuroguidin is expressed in brain, kidney, spleen, ovary and testis, and is encoded by a gene that maps to human chromosome 14q11.2. Chromosome 14 houses over 700 genes and comprises nearly 3.5% of the human genome. Chromosome 14 encodes the presinilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease (AD).

## **REFERENCES**

- Avramopoulos, D., Fallin, M.D. and Bassett, S.S. 2005. Linkage to chromosome 14q in Alzheimer's disease (AD) patients without psychotic symptoms. Am. J. Med. Genet. B Neuropsychiatr. Genet. 132B: 9-13.
- Jung, M.Y., Lorenz, L. and Richter, J.D. 2006. Translational control by neuroguidin, a eukaryotic initiation factor 4E and CPEB binding protein. Mol. Cell. Biol. 26: 4277-4287.
- Nousiainen, M., Sillje, H.H., Sauer, G., Nigg, E.A. and Körner, R. 2006. Phosphoproteome analysis of the human mitotic spindle. Proc. Natl. Acad. Sci. USA 103: 5391-5396.
- 4. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 610777. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Sihn, C.R., Lee, Y.S., Jeong, J.S., Park, K. and Kim, S.H. 2008. CANu1, a novel nucleolar protein, accumulated on centromere in response to DNA damage. Genes Cells 13: 787-796.
- Larner, A.J. and Doran, M. 2009. Genotype-phenotype relationships of presenilin-1 mutations in Alzheimer's disease: an update. J. Alzheimers Dis. 17: 259-265.

# CHROMOSOMAL LOCATION

Genetic locus: NGDN (human) mapping to 14q11.2; Ngdn (mouse) mapping to 14 C3.

## **SOURCE**

neuroguidin (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of neuroguidin of human origin.

# **PRODUCT**

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-243606 P, ( $100 \mu g$  peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **APPLICATIONS**

neuroguidin (C-15) is recommended for detection of neuroguidin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

neuroguidin (C-15) is also recommended for detection of neuroguidin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for neuroguidin siRNA (m): sc-149933, neuroguidin shRNA Plasmid (m): sc-149933-SH and neuroguidin shRNA (m) Lentiviral Particles: sc-149933-V.

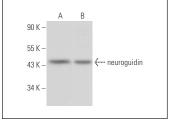
Molecular Weight of neuroguidin isoforms: 36/35 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 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 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



neuroguidin (C-15): sc-243606. Western blot analysis of neuroguidin expression in Hep G2 (**A**) and HeLa (**B**) whole cell Ivsates.

#### **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.

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