



Neurogenin 2 (N-16): sc-19232

BACKGROUND

The Neurogenin family of proteins belongs to the basic helix-loop-helix (bHLH) superfamily and consists of Neurogenin 1, Neurogenin 2 and Neurogenin 3 (also designated *ngn3*). bHLH members are transcriptional regulators that determine cell fate. During mouse neurogenesis, Neurogenin 1 and Neurogenin 2 are expressed in distinct progenitor populations in the central and peripheral nervous systems. Targeted mutation analyses has shown that Neurogenin 1 is essential for the determination of neuronal precursors for proximal cranial sensory ganglia and that Neurogenin 2 is essential for the determination of precursors for epibranchial placode-derived sensory neurons. The gene which encodes Neurogenin 1 maps to human chromosome 5q23-q31.

REFERENCES

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2. Fode, C., et al. 1998. The bHLH protein Neurogenin 2 is a determination factor for epibranchial placode-derived sensory neurons. *Neuron* 20: 483-494.
3. Jacquemin, P., et al. 2000. Transcription factor hepatocyte nuclear factor 6 regulates pancreatic endocrine cell differentiation and controls expression of the proendocrine gene Neurogenin 3. *Mol. Cell. Biol.* 20: 4445-4454.
4. Gradwohl, G., et al. 2000. Neurogenin 3 is required for the development of the four endocrine cell lineages of the pancreas. *Proc. Natl. Acad. Sci. USA* 97: 1607-1611.
5. Schwitzgebel, V.M., et al. 2000. Expression of Neurogenin 3 reveals an islet cell precursor population in the pancreas. *Development* 127: 3533-3542.
6. Jensen, J., et al. 2000. Independent development of pancreatic α - and β -cells from Neurogenin 3-expressing precursors: a role for the notch pathway in repression of premature differentiation. *Diabetes* 49: 163-176.
7. Huang, H.P., et al. 2000. Regulation of the pancreatic islet-specific gene $\beta 2$ (*neuroD*) by Neurogenin 3. *Mol. Cell. Biol.* 20: 3292-3307.

CHROMOSOMAL LOCATION

Genetic locus: *NEUROG2* (human) mapping to 4q25; *Neurog2* (mouse) mapping to 3 H1.

SOURCE

Neurogenin 2 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Neurogenin 2 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-19232 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Neurogenin 2 (N-16) is recommended for detection of Neurogenin 2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

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) 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.

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.