

# Neurogenin 2 (H-55): sc-50402

## 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 showed 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.

## REFERENCES

1. Ben-Arie, N., et al. 1996. Evolutionary conservation of sequence and expression of the bHLH protein atonal suggests a conserved role in neurogenesis. *Hum. Mol. Genet.* 5: 1207-1216.
2. Tamimi, R.M., et al. 1997. NEUROD2 and NEUROD3 genes map to human chromosomes 17q12 and 5q23-q31 and mouse chromosomes 11 and 13, respectively. *Genomics* 40: 355-357.

## CHROMOSOMAL LOCATION

Genetic locus: NEUROG2 (human) mapping to 4q25; Neurog2 (mouse) mapping to 3 G2.

## SOURCE

Neurogenin 2 (H-55) is a rabbit polyclonal antibody raised against amino acids 68-122 mapping within an internal region of Neurogenin 2 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

Neurogenin 2 (H-55) is recommended for detection of Neurogenin 2 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Neurogenin 2 (H-55) is also recommended for detection of Neurogenin 2 in additional species, including canine and bovine.

Suitable for use as control antibody for Neurogenin 2 siRNA (h): sc-42077, Neurogenin 2 siRNA (m): sc-42078, Neurogenin 2 shRNA Plasmid (h): sc-42077-SH, Neurogenin 2 shRNA Plasmid (m): sc-42078-SH, Neurogenin 2 shRNA (h) Lentiviral Particles: sc-42077-V and Neurogenin 2 shRNA (m) Lentiviral Particles: sc-42078-V.

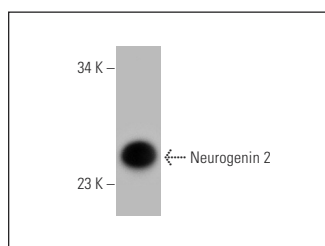
Molecular Weight of Neurogenin 2: 28 kDa.

Positive Controls: mouse small Intestine extract: sc-364252.

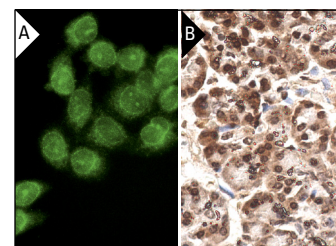
## RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



Neurogenin 2 (H-55): sc-50402. Western blot analysis of Neurogenin 2 expression in mouse small intestine tissue extract.



Neurogenin 2 (H-55): sc-50402. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing nuclear and cytoplasmic staining of glandular cells (B).

## SELECT PRODUCT CITATIONS

1. Song, L., et al. 2005. Origin and characterization of multipotential mesenchymal stem cells derived from adult human trabecular bone. *Stem Cells Dev.* 14: 712-721.
2. Tury, A., et al. 2011. The cyclin-dependent kinase inhibitor p57<sup>Kip2</sup> regulates cell cycle exit, differentiation, and migration of embryonic cerebral cortical precursors. *Cereb. Cortex* 21: 1840-1856.

## 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.

**MONOS**  
Satisfaction  
Guaranteed

Try **Neurogenin 2 (2A8): sc-293430**, our highly recommended monoclonal alternative to Neurogenin 2 (H-55).