

Nkx-2.2 (H-60): sc-25404

BACKGROUND

Members of the NK-2 family of homeodomain proteins are key regulators of growth and development in several tissues, including brain, heart and pancreas. During neural development, sonic hedgehog (Shh) is known to control cell fate and mitogenesis, which is correlated with Shh dose-dependent expression of several genes, including Nkx-2.1, Nkx-2.2 and Nkx-2.9. Specifically, the Nkx-2.2 protein is responsible for directing ventral neuronal patterning in response to graded Shh signaling. In the pancreas, Nkx-2.2 is expressed in α , β and pancreatic polypeptide (PP) cells, but not in δ cells. Nkx-2.2 expression is required for differentiation of pancreatic β cells, which produce Insulin. Homozygous null mutations of the Nkx-2.2 gene in mice lead to severe hyperglycemia and death shortly after birth, which suggests that Nkx-2.2 may be an important therapeutic target for pancreatic diseases, including diabetes and cancer.

CHROMOSOMAL LOCATION

Genetic locus: NKX2-2 (human) mapping to 20p11.22; Nkx2-2 (mouse) mapping to 2 G2.

SOURCE

Nkx-2.2 (H-60) is a rabbit polyclonal antibody raised against amino acids 214-273 mapping at the C-terminus of Nkx-2.2 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-25404 X, 200 μ g/0.1 ml.

RESEARCH USE

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

APPLICATIONS

Nkx-2.2 (H-60) is recommended for detection of Nkx-2.2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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).

Nkx-2.2 (H-60) is also recommended for detection of Nkx-2.2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Nkx-2.2 siRNA (h): sc-38723, Nkx-2.2 siRNA (m): sc-38724, Nkx-2.2 shRNA Plasmid (h): sc-38723-SH, Nkx-2.2 shRNA Plasmid (m): sc-38724-SH, Nkx-2.2 shRNA (h) Lentiviral Particles: sc-38723-V and Nkx-2.2 shRNA (m) Lentiviral Particles: sc-38724-V.

Nkx-2.2 (H-60) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

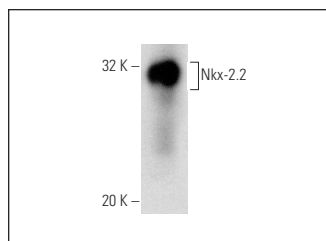
Molecular Weight of Nkx-2.2: 30 kDa.

Positive Controls: mouse brain extract: sc-2253, RAW 264.7 nuclear extract: sc-24961 or NIH/3T3 nuclear extract: sc-2138.

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



Nkx-2.2 (H-60): sc-25404. Western blot analysis of Nkx-2.2 expression in mouse brain tissue extract.

SELECT PRODUCT CITATIONS

- Andralojc, K.M., et al. 2009. Ghrelin-producing epsilon cells in the developing and adult human pancreas. *Diabetologia* 52: 486-493.
- Zeng, B., et al. 2011. Developmental patterns and characteristics of epicardial cell markers Tbx18 and Wt1 in murine embryonic heart. *J. Biomed. Sci.* 18: 67.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **Nkx-2.2 (D-4): sc-398951** or **Nkx-2.2 (F-2): sc-514161**, our highly recommended monoclonal alternatives to Nkx-2.2 (H-60).