SANTA CRUZ BIOTECHNOLOGY, INC.

Nkx-2.8 (C-18): sc-74691

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Members of the NK-2 family of homeodomain proteins, which include Nkx-2.2, Nkx-2.5, Nkx-2.6 and Nkx-2.8, are key regulators of growth and development in several tissues, including brain, heart and pancreas. Nkx-2.2 is responsible for directing ventral neuronal patterning in response to graded Shh signaling. Nkx-2.5, also designated cardiac specific homeobox protein (Csx), is a homolog of the *Drosophila* tinman protein and is essential for normal cardiovascular development. Nkx-2.6, also a homolog of the *Drosophila* tinman protein, is expressed in the caudal pharyngeal pouches, the caudal heart progenitors, the sinus venosus, the outflow tract of the heart and in a short segment of the gut between stages E8.5 and E10.5 of embryogenesis. Nkx-2.8 is a nuclear protein that contains one homeobox DNA-binding domain, indicating a possible role in development.

REFERENCES

1. Komuro, I. and Izumo, S. 1993. Csx: a murine homeobox-containing gene specifically expressed in the developing heart. Proc. Natl. Acad. Sci. USA 90: 8145-8149.
2. Mably, J.D. and Liew, C.C. 1996. Factors involved in cardiogenesis and the regulation of cardiac-specific gene expression. Circ. Res. 79: 4-13.
3. Sussel, L., et al. 1998. Mice lacking the homeo-domain transcription factor Nkx2.2 have diabetes due to arrested differentiation of pancreatic β cells. Development 125: 2213-2221.
4. Apergis, G.A., et al. 1998. A novel Nk-2-related transcription factor associated with human fetal liver and hepatocellular carcinoma. J. Biol. Chem. 273: 2917-2925.
5. Pabst, O., et al. 1998. Nkx2-9 is a novel homeobox transcription factor which demarcates ventral domains in the developing mouse CNS. Mech. Dev. 73: 85-93.
6. Tian, J., et al. 2006. Loss of Nkx2.8 deregulates progenitor cells in the large airways and leads to dysplasia. Cancer Res. 66: 10399-10407.

CHROMOSOMAL LOCATION

Genetic locus: NKX2-8 (human) mapping to 14q13.3; Nkx2-9 (mouse) mapping to 12 C1.

SOURCE

Nkx-2.8 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Nkx-2.8 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-74691 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-74691 X, 200 µg/0.1 ml.

APPLICATIONS

Nkx-2.8 (C-18) is recommended for detection of Nkx-2.8 of mouse, rat and 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), 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).

Nkx-2.8 (C-18) is also recommended for detection of Nkx-2.8 in additional species, including bovine and porcine.

Suitable for use as control antibody for Nkx-2.8 siRNA (h): sc-75929, Nkx-2.8 siRNA (m): sc-75930, Nkx-2.8 shRNA Plasmid (h): sc-75929-SH, Nkx-2.8 shRNA Plasmid (m): sc-75930-SH, Nkx-2.8 shRNA (h) Lentiviral Particles: sc-75929-V and Nkx-2.8 shRNA (m) Lentiviral Particles: sc-75930-V.

Nkx-2.8 (C-18) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

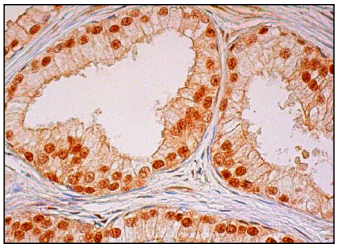
Molecular Weight of Nkx-2.8: 28 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



Nkx-2.8 (C-18): sc-74691. Immunoperoxidase staining of formalin fixed, paraffin-embedded human prostate tissue showing nuclear staining of glandular cells.

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.