

# Nkx-2.4 (O-22): sc-133827

## BACKGROUND

Members of the NK-2 family of homeodomain proteins, which include Nkx-2.2, Nkx-2.4, Nkx-2.5, Nkx-2.6 and many others, 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-2.4 is a 354 amino acid nuclear protein that is detected in the posterior hypothalamus of the embryo and also in adult testis. 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.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: NKX2-4 (human) mapping to 20p11.22; Nkx2-4 (mouse) mapping to 2 G2.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

## SOURCE

Nkx-2.4 (O-22) is an affinity purified rabbit polyclonal antibody raised against synthetic Nkx-2.4 peptide of mouse origin.

## PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

## APPLICATIONS

Nkx-2.4 (O-22) is recommended for detection of Nkx-2.4 of mouse 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

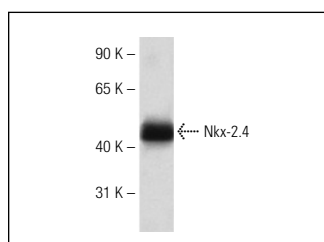
Suitable for use as control antibody for Nkx-2.4 siRNA (h): sc-106305, Nkx-2.4 siRNA (m): sc-150000, Nkx-2.4 shRNA Plasmid (h): sc-106305-SH, Nkx-2.4 shRNA Plasmid (m): sc-150000-SH, Nkx-2.4 shRNA (h) Lentiviral Particles: sc-106305-V and Nkx-2.4 shRNA (m) Lentiviral Particles: sc-150000-V.

Molecular Weight of Nkx-2.4: 36 kDa.

## 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).

## DATA



Nkx-2.4 (O-22): sc-133827. Western blot analysis of Nkx-2.4 expression in mouse testis tissue extract.

## RESEARCH USE

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