

# Nkx-6.3 (O-25): sc-133830

## BACKGROUND

Members of the Nkx family of homeodomain proteins are key regulators of growth and development in several tissues, including brain, heart and pancreas. The Nkx-6 family is involved in the patterning of the pancreas and central nervous system and consists of three proteins: Nkx-6.1, Nkx-6.2 and Nkx-6.3. Nkx-6.1 is responsible for cellular differentiation in the ventral neural tube and spinal meninges in response to Shh. Nkx-6.2 is also expressed during neural tube development by neural progenitor cells. During development, Nkx-6.2 regulates interneuron fates by repressing the expression of Dbx1, a class I homeodomain transcription repressor. Nkx-6.3 is a 265 amino acid homeobox protein that shows selective expression in the duodenal and glandular endoderm, in contrast to Nkx-6.1 and Nkx-6.2 that are broadly expressed in the ventral positions of the developing CNS. Nkx-6.3 is required in differentiation of gastrin-producing G-cells in the stomach and antrum. There are two isoforms of Nkx-6.3 that are produced as a result of alternative splicing events.

## REFERENCES

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## 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.

## CHROMOSOMAL LOCATION

Genetic locus: NKX6-3 (human) mapping to 8p11.21.

## SOURCE

Nkx-6.3 (O-25) is a Protein A purified rabbit polyclonal antibody raised against synthetic Nkx-6.3 peptide of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

## APPLICATIONS

Nkx-6.3 (O-25) is recommended for detection of Nkx-6.3 of 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-6.3 siRNA (h): sc-77590, Nkx-6.3 shRNA Plasmid (h): sc-77590-SH and Nkx-6.3 shRNA (h) Lentiviral Particles: sc-77590-V.

Molecular Weight of Nkx-6.3: 29 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

## 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<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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).

## RESEARCH USE

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