

Nkx-3.2 (G-20): sc-25066

BACKGROUND

The homeobox gene Nkx-3.2, also designated Bapx1, is the human homolog of *Drosophila* bagpipe, which, in conjunction with tinman, determines cell fate in the dorsal mesoderm. In mammalian species, Nkx-3.2 is a key transcription factor that regulates the development of smooth muscle tissues and skeletal structures. Specifically, Nkx-3.2 regulates spleen development and the development of the axial skeleton. It is also considered as an early marker for prechondrogenic cells. The human Nkx-3.2 gene maps to chromosome 4p16.1, a region containing loci for several skeletal diseases. Nkx-3.2 null mice exhibit skeletal dysplasia, asplenia, and gastroduodenal malformation, with abnormal development of the vertebral column and cranial bones of mesodermal origin. During axial cartilage formation, Nkx-3.2 inhibits the actions of Shh, a factor that interferes with the prochondrogenic effects of the BMPs.

CHROMOSOMAL LOCATION

Genetic locus: BAPX1 (human) mapping to 4p16.1; Bapx1 (mouse) mapping to 5 B3.

SOURCE

Nkx-3.2 (G-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Nkx-3.2 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-25066 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-25066 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Nkx-3.2 (G-20) is recommended for detection of Nkx-3.2 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Nkx-3.2 (G-20) is also recommended for detection of Nkx-3.2 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Nkx-3.2 siRNA (h): sc-38729, Nkx-3.2 siRNA (m): sc-38730, Nkx-3.2 shRNA Plasmid (h): sc-38729-SH, Nkx-3.2 shRNA Plasmid (m): sc-38730-SH, Nkx-3.2 shRNA (h) Lentiviral Particles: sc-38729-V and Nkx-3.2 shRNA (m) Lentiviral Particles: sc-38730-V.

Nkx-3.2 (G-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

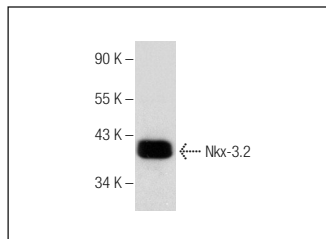
Molecular Weight of Nkx-3.2: 35 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or mouse liver extract: sc-2256.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Nkx-3.2 (G-20): sc-25066. Western blot analysis of Nkx-3.2 expression in mouse liver tissue extract.

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.

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **Nkx-3.2 (H-4): sc-514166**, our highly recommended monoclonal alternative to Nkx-3.2 (G-20).