SANTA CRUZ BIOTECHNOLOGY, INC.

Sox-3 (H-135): sc-20089

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Sox genes comprise a family of genes that are related to the mammalian sex determining gene SRY. These genes similarly contain sequences that encode for the HMG-box domain, which is responsible for the sequence-specific DNA-binding activity. Sox genes encode putative transcriptional regulators implicated in the decision of cell fates during development and the control of diverse developmental processes. The highly complex group of Sox genes cluster at least 40 different loci that rapidly diverged in various animal lineages. At present, 30 Sox genes have been identified. Members of this family have been shown to be conserved during evolution and to play key roles during animal development. Some are involved in human diseases, including sex reversal. Sox-3, also known as MRGH or SOXB, is implicated in mental retardation X-linked with isolated growth hormone deficiency (MRXGH) and infundibular hypoplasia and hypopituitarism.

CHROMOSOMAL LOCATION

Genetic locus: SOX3 (human) mapping to Xq27.1.

SOURCE

Sox-3 (H-135) is a rabbit polyclonal antibody raised against amino acids 1-135 of Sox-3 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-20089 X, 200 µg/0.1 ml.

STORAGE

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

APPLICATIONS

Sox-3 (H-135) is recommended for detection of Sox-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)], 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).

Suitable for use as control antibody for Sox-3 siRNA (h): sc-38410, Sox-3 shRNA Plasmid (h): sc-38410-SH and Sox-3 shRNA (h) Lentiviral Particles: sc-38410-V.

Sox-3 (H-135) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

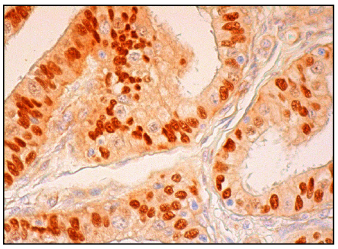
Molecular Weight of Sox-3: 45 kDa.

Positive Controls: A-431 nuclear extract: sc-2122, IMR-32 nuclear extract: sc-2148 or MCF7 whole cell lysate: sc-2206.

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



Sox-3 (H-135): sc-20089. Immunoperoxidase staining of formalin fixed, paraffin-embedded human fallopian tube tissue showing nuclear staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Mojsin, M., et al. 2006. Mapping of the RXR1 binding elements involved in retinoic acid induced transcriptional activation of the human SOX3 gene. Neurosci. Res. 56: 409-418.
2. Wearne, K.A., et al. 2008. Temporal changes in the carbohydrates expressed on BG01 human embryonic stem cells during differentiation as embryoid bodies. Glycoconj. J. 25: 121-136.
3. Nikcevi, G., et al. 2008. Up-regulation of the SOX3 gene expression by retinoic acid: characterization of the novel promoter-response element and the retinoid receptors involved. J. Neurochem. 107: 1206-1215.
4. Mojsin, M. and Stevanovic, M. 2010. PBX1 and MEIS1 up-regulate SOX3 gene expression by direct interaction with a consensus binding site within the basal promoter region. Biochem. J. 425: 107-116.

RESEARCH USE

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