SANTA CRUZ BIOTECHNOLOGY, INC.

Sox-7 (H-175): sc-20093

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 a minimum of 40 different loci that rapidly diverged in various animal lineages. At present 30 Sox genes have been identified, and 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.

REFERENCES

1. Laudet, V., et al. 1993. Ancestry and diversity of the HMG box superfamily. Nucleic Acids Res. 21: 2493-2501.
2. Kuhlbrodt, K., et al. 1998. Sox-10, a novel transcriptional modulator in glial cells. J. Neurosci. 18: 237-250.
3. Arsic, N., et al. 1998. Characterisation and mapping of the human Sox-14 gene. Cytogenet. Cell Genet. 83: 139-146.
4. Osaki, E., et al. 1999. Identifica-tion of a novel SRY-related gene and its germ cell-specific expression. Nucleic Acids Res. 27: 2503-2510.
5. Sasai, Y. 2001. Roles of Sox factors in neural determination: conserved signaling in evolution? Int. J. Dev. Biol. 45: 321-326.

CHROMOSOMAL LOCATION

Genetic locus: SOX7 (human) mapping to 8p23.1; Sox7 (mouse) mapping to 14 D1.

SOURCE

Sox-7 (H-175) is a rabbit polyclonal antibody raised against amino acids 121-295 mapping near the C-terminus of Sox-7 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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-20093 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.

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.

APPLICATIONS

Sox-7 (H-175) is recommended for detection of Sox-7 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).

Sox-7 (H-175) is also recommended for detection of Sox-7 in additional species, including canine and porcine.

Suitable for use as control antibody for Sox-7 siRNA (h): sc-38416, Sox-7 siRNA (m): sc-38417, Sox-7 shRNA Plasmid (h): sc-38416-SH, Sox-7 shRNA Plasmid (m): sc-38417-SH, Sox-7 shRNA (h) Lentiviral Particles: sc-38416-V and Sox-7 shRNA (m) Lentiviral Particles: sc-38417-V

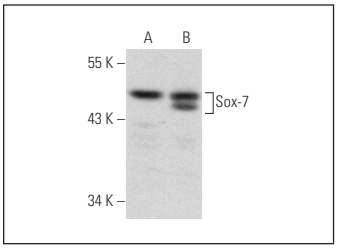
Sox-7 (H-175) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of Soc-7: 42 kDa.

Molecular Weight (observed) of Soc-7: 48 kDa.

Positive Controls: U-937 nuclear extract: sc-2156, PC-3 nuclear extract: sc-2152 or SP2/0 whole cell lysate: sc-364795.

DATA



Sox-7 (H-175): sc-20093. Western blot analysis of Sox-7 expression in U-937 (**A**) and PC-3 (**B**) nuclear extracts.

SELECT PRODUCT CITATIONS

1. zur Nieden, N.I., et al. 2007. Gene profiling on mixed embryonic stem cell populations reveals a biphasic role for β-catenin in osteogenic differentiation. Mol. Endocrinol. 21: 674-685.
2. Hashiguchi, K., et al. 2007. Recruitment of DNA repair synthesis machinery to sites of DNA damage/repair in living human cells. Nucleic Acids Res. 35: 2913-2923.
3. Guo, L., et al. 2008. Sox-7 is an independent checkpoint for β-catenin function in prostate and colon epithelial cells. Mol. Cancer Res. 6: 1421-1430.
4. Debeb, B.G., et al. 2009. Isolation of Oct4-expressing extraembryonic endoderm precursor cell lines. PLoS One 4: e7216.