SANTA CRUZ BIOTECHNOLOGY, INC.

Sox-9 (H-90): sc-20095

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 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.

CHROMOSOMAL LOCATION

Genetic locus: SOX9 (human) mapping to 17q24.3; Sox9 (mouse) mapping to 11 E2.

SOURCE

Sox-9 (H-90) is a rabbit polyclonal antibody raised against amino acids 407-496 mapping near the C-terminus of Sox-9 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-20095 X, 200 µg/0.1 ml.

Sox-9 (H-90) is available conjugated to agarose (sc-20095 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP.

APPLICATIONS

Sox-9 (H-90) is recommended for detection of Sox-9 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), 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).

Sox-9 (H-90) is also recommended for detection of Sox-9 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for Sox-9 siRNA (h): sc-36533, Sox-9 siRNA (m): sc-36534, Sox-9 shRNA Plasmid (h): sc-36533-SH, Sox-9 shRNA Plasmid (m): sc-36534-SH, Sox-9 shRNA (h) Lentiviral Particles: sc-36533-V and Sox-9 shRNA (m) Lentiviral Particles: sc-36534-V.

Sox-9 (H-90) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Sox-9: 65 kDa.

Positive Controls: Sox-9 (m4): 293T Lysate: sc-126034.

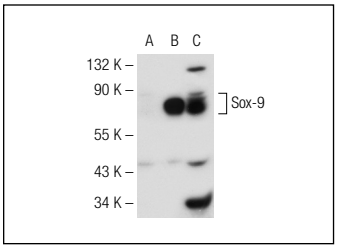
RESEARCH USE

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

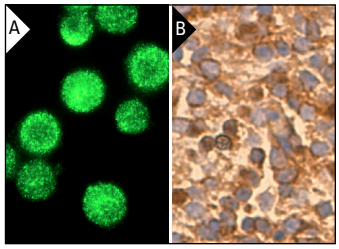
STORAGE

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

DATA



Sox-9 (H-90): sc-20095. Western blot analysis of Sox-9 expression in non-transfected: sc-117752 (**A**) and mouse Sox-9 transfected: sc-126034 (**B**) 293T whole cell lysates and SW480 nuclear extract (**C**).



Sox-9 (H-90): sc-20095. Immunofluorescence staining of methanol-fixed SW480 cells showing nuclear localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse embryo showing nuclear localization (**B**).

SELECT PRODUCT CITATIONS

1. Guo, X., et al. 2004. Wnt/β-catenin signaling is sufficient and necessary for synovial joint formation. Genes Dev. 18: 2404-2417.
2. Dadhich, R.K., et al. 2011. Expression of genes controlling testicular development in adult testis of the seasonally breeding iberian mole. Sex. Dev. 5: 77-88.
3. Cooke, M.E., et al. 2011. Structured three-dimensional co-culture of mesenchymal stem cells with chondrocytes promotes chondrogenic differentiation without hypertrophy. Osteoarthr. Cartil. 19: 1210-1218.
4. Jiang, W., et al. 2011. CD24: a novel surface marker for PDX1-positive pancreatic progenitors derived from human embryonic stem cells. Stem Cells 29: 609-617.
5. Torreggiani E, et al. 2011. Role of Slug transcription factor in human mesenchymal stem cells. J. Cell. Mol. Med. 16: 740-751.
6. Garcia-Lavandeira, M., et al. 2012. Craniopharyngiomas express embryonic stem cell markers (SOX2, OCT4, KLF4, and SOX9) as pituitary stem cells but do not coexpress RET/GFRA3 receptors. J. Clin. Endocrinol. Metab. 97: E80-E87.
7. Gao, M., et al. 2012. Ghrelin promotes the differentiation of human embryonic stem cells in infarcted cardiac microenvironment. Peptides 34: 373-379.
8. Vollmers, A., et al. 2012. Two- and three-dimensional culture of keratinocyte stem and precursor cells derived from primary murine epidermal cultures. Stem Cell Rev. 8: 402-413.