

# Sox-1 (L-20): sc-17317

## 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. Sox10, a novel transcriptional modulator in glial cells. *J. Neurosci.* 18: 237-250.
3. Arsic, N., et al. 1998. Characterisation and mapping of the human Sox14 gene. *Cytogenet. Cell Genet.* 83: 139-146.
4. Osaki, E., et al. 1999. Identification 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: SOX1 (human) mapping to 13q34; Sox1 (mouse) mapping to 8 A1.1.

## SOURCE

Sox-1 (L-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Sox-1 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.

Blocking peptide available for competition studies, sc-17317 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-17317 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

Sox-1 (L-20) is recommended for detection of Sox-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Suitable for use as control antibody for Sox-1 siRNA (h): sc-38406, Sox-1 siRNA (m): sc-38407, Sox-1 shRNA Plasmid (h): sc-38406-SH, Sox-1 shRNA Plasmid (m): sc-38407-SH, Sox-1 shRNA (h) Lentiviral Particles: sc-38406-V and Sox-1 shRNA (m) Lentiviral Particles: sc-38407-V.

Sox-1 (L-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

## 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) 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.

## SELECT PRODUCT CITATIONS

1. Yang, Y., et al. 2004. Transcriptional regulation of mouse  $\alpha$ B- and  $\gamma$ F-crystallin genes in lens: opposite promoter-specific interactions between Pax6 and large Maf transcription factors. *J. Mol. Biol.* 344: 351-368.
2. Wong, Y.H., et al. 2010. Protogenin defines a transition stage during embryonic neurogenesis and prevents precocious neuronal differentiation. *J. Neurosci.* 30: 4428-4439.
3. Panayi, H., et al. 2010. Sox1 is required for the specification of a novel p2-derived interneuron subtype in the mouse ventral spinal cord. *J. Neurosci.* 30: 12274-12280.
4. Elkouris, M., et al. 2011. Sox1 maintains the undifferentiated state of cortical neural progenitor cells via the suppression of Prox1-mediated cell cycle exit and neurogenesis. *Stem Cells* 29: 89-98.

## RESEARCH USE

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