

# Sox-4 (C-20): sc-17326

## 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: SOX4 (human) mapping to 6p22.3; Sox4 (mouse) mapping to 13 A3.1.

## SOURCE

Sox-4 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Sox-4 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-17326 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

Sox-4 (C-20) is recommended for detection of Sox-4 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-4 (C-20) is also recommended for detection of Sox-4 in additional species, including bovine and porcine.

Suitable for use as control antibody for Sox-4 siRNA (h): sc-38412, Sox-4 siRNA (m): sc-38413, Sox-4 shRNA Plasmid (h): sc-38412-SH, Sox-4 shRNA Plasmid (m): sc-38413-SH, Sox-4 shRNA (h) Lentiviral Particles: sc-38412-V and Sox-4 shRNA (m) Lentiviral Particles: sc-38413-V.

Sox-4 (C-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

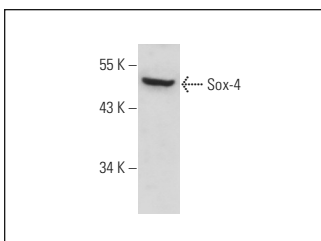
Molecular Weight of Sox-4: 47 kDa.

Positive Controls: mouse brain extract: sc-2253.

## 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



Sox-4 (C-20): sc-17326. Western blot analysis of Sox-4 expression in mouse brain tissue extract.

## SELECT PRODUCT CITATIONS

1. Yamada, S., et al. 2004. Gene expression profiling identifies a set of transcripts that are up-regulated in human testicular seminoma. *DNA Res.* 11: 335-344.
2. Rodda, D.J., et al. 2005. Transcriptional regulation of nanog by Oct4 and Sox-2. *J. Biol. Chem.* 280: 24731-24737.
3. Pramoongjago, P., et al. 2006. Knockdown of Sox-4 expression by RNAi induces apoptosis in ACC3 cells. *Oncogene* 25: 5626-5639.
4. Wang, Z.X., et al. 2007. Oct4 and Sox2 directly regulate expression of another pluripotency transcription factor, Zfp206, in embryonic stem cells. *J. Biol. Chem.* 282: 12822-12830.
5. Boogerd, C.J., et al. 2011. Sox4 mediates Tbx3 transcriptional regulation of the gap junction protein Cx43. *Cell. Mol. Life Sci.* 68: 3949-3961.
6. Aue, G., et al. 2011. Sox4 cooperates with PU.1 haploinsufficiency in murine myeloid leukemia. *Blood* 118: 4674-4681.

## RESEARCH USE

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



Try **Sox-4 (154C4a): sc-130633**, our highly recommended monoclonal alternative to Sox-4 (C-20).