

Sox-2 (Y-17): sc-17320

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: SOX2 (human) mapping to 3q26.33; Sox2 (mouse) mapping to 3 A3.

SOURCE

Sox-2 (Y-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Sox-2 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-17320 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-17320 X, 200 µg/0.1 ml.

APPLICATIONS

Sox-2 (Y-17) is recommended for detection of Sox-2 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-2 (Y-17) is also recommended for detection of Sox-2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Sox-2 siRNA (h): sc-38408, Sox-2 siRNA (m): sc-38409, Sox-2 shRNA Plasmid (h): sc-38408-SH, Sox-2 shRNA Plasmid (m): sc-38409-SH, Sox-2 shRNA (h) Lentiviral Particles: sc-38408-V and Sox-2 shRNA (m) Lentiviral Particles: sc-38409-V.

Sox-2 (Y-17) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

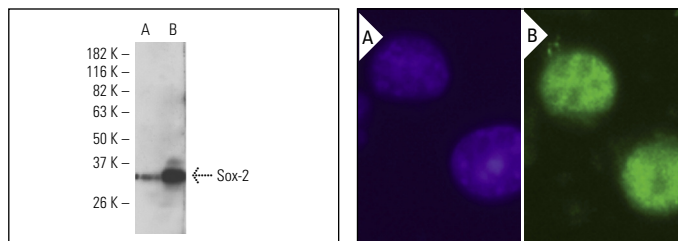
Molecular Weight of Sox-2: 34 kDa.

Positive Controls: rat small intestine extract: sc-364811.

STORAGE

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

DATA



Sox-2 (Y-17): sc-17320. Western blot analysis of Sox-2 expression in human (A) and mouse (B) embryonic stem cell lysates. Kindly provided by Dr. Nobuaki Kikyo, Stem Cell Institute, University of Minnesota.

Sox-2 (Y-17): sc-17320. Immunofluorescence staining of paraformaldehyde-fixed mouse embryonic stem cells showing Hoechst nuclear staining (A) and nuclear localization (B). Kindly provided by Dr. Nobuaki Kikyo, Stem Cell Institute, University of Minnesota.

SELECT PRODUCT CITATIONS

1. Klassen, H., et al. 2004. Isolation of retinal progenitor cells from post-mortem human tissue and comparison with autologous brain progenitors. *J. Neurosci. Res.* 77: 334-343.
2. Jinno, S. 2011. Decline in adult neurogenesis during aging follows a topographic pattern in the mouse hippocampus. *J. Comp. Neurol.* 519: 451-466.
3. Bernemann, C., et al. 2011. Distinct developmental ground states of epiblast stem cell lines determine different pluripotency features. *Stem Cells* 29: 1496-1503.
4. Ding, D., et al. 2012. Over-expression of Sox2 in C3H10T1/2 cells inhibits osteoblast differentiation through Wnt and MAPK signalling pathways. *Int. Orthop.* 36: 1087-1094.
5. Jadasz, J.J., et al. 2012. p57kip2 regulates glial fate decision in adult neural stem cells. *Development* 139: 3306-3315.
6. Lanshakov, D., et al. 2012. Protooncogene Ski cooperates with the chromatin-remodeling factor Satb2 in specifying callosal neurons. *Proc. Natl. Acad. Sci. USA* 109: 3546-3551.
7. Yi, F., et al. 2012. Establishment of hepatic and neural differentiation platforms of Wilson's disease specific induced pluripotent stem cells. *Protein Cell* 3: 855-863.

RESEARCH USE

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



Try **Sox-2 (E-4): sc-365823** or **Sox-2 (D-9): sc-398254**, our highly recommended monoclonal alternatives to Sox-2 (Y-17). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Sox-2 (E-4): sc-365823**.