

Sox-10 (H-140): sc-48824

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., Stehelin, D. and Clevers, H. 1993. Ancestry and diversity of the HMG box superfamily. *Nucleic Acids Res.* 21: 2493-2501.
2. Kuhlbrodt, K., Herbarth, B., Sock, E., Hermans-Borgmeyer, I. and Wegner, M. 1998. Sox-10, a novel transcriptional modulator in glial cells. *J. Neurosci.* 18: 237-250.
3. Arsic, N., Rajic, T., Stanojic, S., Goodfellow, P.N. and Stevanovic, M. 1998. Characterisation and mapping of the human Sox-14 gene. *Cytogenet. Cell Genet.* 83: 139-146.
4. Osaki, E., Nishina, Y., Inazawa, J., Copeland, N.G., Gilbert, D.J., Jenkins, N.A., Ohsugi, M., Tezuka, T., Yoshida, M. and Semba, K. 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: SOX10 (human) mapping to 22q13.1, SOX9 (human) mapping to 17q24.3; Sox10 (mouse) mapping to 15 E1, Sox9 (mouse) mapping to 11 E2.

SOURCE

Sox-10 (H-140) is a rabbit polyclonal antibody raised against amino acids 311-450 mapping near the C-terminus of Sox-10 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-48824 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.

APPLICATIONS

Sox-10 (H-140) is recommended for detection of Sox-10 and, to a lesser extent, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Sox-10 (H-140) is also recommended for detection of Sox-10 and, to a lesser extent, Sox-9 in additional species, including equine, canine, bovine and porcine.

Sox-10 (H-140) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

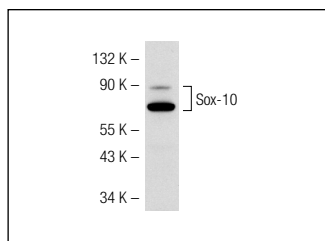
Molecular Weight of Sox-10: 58 kDa.

Positive Controls: rat brain extract: sc-2392, mouse brain extract: sc-2253 or rat cerebellum extract: sc-2398.

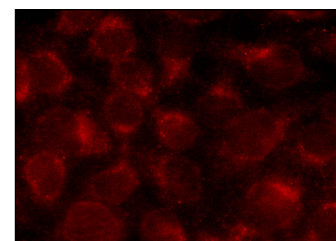
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Sox-10 (H-140): sc-48824. Western blot analysis of Sox-10 expression in mouse brain tissue extract.



Sox-10 (H-140): sc-48824. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **Sox-10 (A-2): sc-365692** or **Sox-10 (G-11): sc-374170**, our highly recommended monoclonal alternatives to Sox-10 (H-140). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Sox-10 (A-2): sc-365692**.