

Sox-4 (154C4a): sc-130633

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 least 40 different loci that rapidly diverged in various animal lineages. At present, 30 Sox genes have been identified. 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

- Laudet, V., et al. 1993. Ancestry and diversity of the HMG box superfamily. *Nucleic Acids Res.* 21: 2493-2501.
- Kuhlbrodt, K., et al. 1998. Sox-10, a novel transcriptional modulator in glial cells. *J. Neurosci.* 18: 237-250.
- Arsic, N., et al. 1998. Characterisation and mapping of the human Sox-14 gene. *Cytogenet. Cell Genet.* 83: 139-146.
- Osaki, E., et al. 1999. Identification of a novel Sry-related gene and its germ cell-specific expression. *Nucleic Acids Res.* 27: 2503-2510.
- 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: SOX4 (human) mapping to 6p22.3; Sox4 (mouse) mapping to 13 A3.1.

SOURCE

Sox-4 (154C4a) is a mouse monoclonal antibody raised against a recombinant protein corresponding to a region near the C-terminus of Sox-4 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 1.0% stabilizer protein.

APPLICATIONS

Sox-4 (154C4a) 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

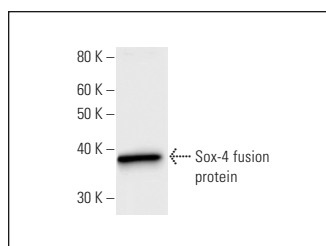
Suitable for use as control antibody for Sox-4 siRNA (h): sc-38412, Sox-4 siRNA (m): sc-38413, Sox-4 shRNA Plasmid (h): sc-38412-SH, Sox-4 shRNA Plasmid (m): sc-38413-SH, Sox-4 shRNA (h) Lentiviral Particles: sc-38412-V and Sox-4 shRNA (m) Lentiviral Particles: sc-38413-V.

Molecular Weight of Sox-4: 47 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Sox-4 (154C4a): sc-130633. Western blot analysis of human recombinant Sox-4 fusion protein.

SELECT PRODUCT CITATIONS

- Wu, X., et al. 2017. Upregulation of microRNA-25-3p inhibits proliferation, migration and invasion of osteosarcoma cells *in vitro* by directly targeting Sox-4. *Mol. Med. Rep.* 16: 4293-4300.
- Zhao, J., et al. 2018. MicroRNA-539 inhibits colorectal cancer progression by directly targeting Sox-4. *Oncol. Lett.* 16: 2693-2700.
- Ha Thi, H.T., et al. 2019. MicroRNA-130a modulates a radiosensitivity of rectal cancer by targeting SOX4. *Neoplasia* 21: 882-892.
- Sun, Z., et al. 2019. Long non-coding RNA metastasis-associated lung adenocarcinoma transcript 1 (MALAT1) promotes proliferation and metastasis of osteosarcoma cells by targeting c-Met and SOX4 via miR-34a/c-5p and miR-449a/b. *Med. Sci. Monit.* 25: 1410-1422.

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.

PROTOCOLS

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