

Sox-2 (D-9): sc-398254

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.

CHROMOSOMAL LOCATION

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

SOURCE

Sox-2 (D-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 267-291 near the C-terminus of Sox-2 of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-398254 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-398254 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Sox-2 (D-9) is recommended for detection of Sox-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 (D-9) 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 (D-9) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

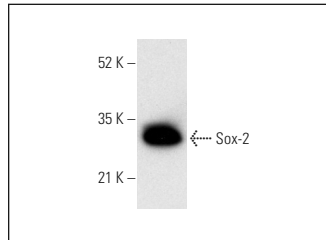
Molecular Weight of Sox-2: 34 kDa.

Positive Controls: human esophagus extract: sc-363760.

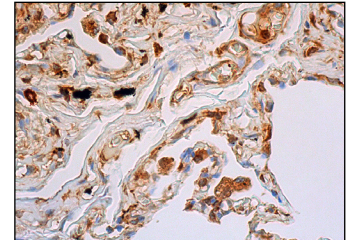
RECOMMENDED SUPPORT REAGENTS

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 L-Agarose: sc-2336 (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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohisto-mount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Sox-2 (D-9): sc-398254. Western blot analysis of Sox-2 expression in human esophagus tissue extract.



Sox-2 (D-9): sc-398254. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lung tissue showing nuclear and cytoplasmic staining of macrophages.

SELECT PRODUCT CITATIONS

- Monterisi, S., et al. 2018. HOXB7 overexpression in lung cancer is a hallmark of acquired stem-like phenotype. *Oncogene* 37: 3575-3588.
- Yeon, M., et al. 2019. CAGE-miR-140-5p-Wnt1 axis regulates autophagic flux, tumorigenic potential of mouse colon cancer cells and cellular interactions mediated by exosomes. *Front. Oncol.* 9: 1240.
- Abdollahi, S., et al. 2020. Lentiviral vector-mediated transduction of adult neural stem/progenitor cells isolated from the temporal tissues of epileptic patients. *Iran. J. Basic Med. Sci.* 23: 354-361.
- Le, R., et al. 2021. Dcaf11 activates Zscan4-mediated alternative telomere lengthening in early embryos and embryonic stem cells. *Cell Stem Cell* 28: 732-747.e9.
- Togano, S., et al. 2021. Gastric cancer stem cells survive in stress environments via their autophagy system. *Sci. Rep.* 11: 20664.
- Malla, S., et al. 2022. ZFP207 sustains pluripotency by coordinating OCT4 stability, alternative splicing and RNA export. *EMBO Rep.* E-published.

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.