

Sox-10 (A-2): sc-365692

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

1. Laudet, V., et al. 1993. Ancestry and diversity of the HMG box superfamily. *Nucleic Acids Res.* 21: 2493-2501.
2. Kuhlbrodt, K., et al. 1998. Sox-10, a novel transcriptional modulator in glial cells. *J. Neurosci.* 18: 237-250.
3. Arsic, N., et al. 1998. Characterisation and mapping of the human Sox14 gene. *Cytogenet. Cell Genet.* 83: 139-146.

CHROMOSOMAL LOCATION

Genetic locus: SOX10 (human) mapping to 22q13.1; Sox10 (mouse) mapping to 15 E1.

SOURCE

Sox-10 (A-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 2-29 at the N-terminus of Sox-10 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ 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-365692 X, 200 µg/0.1 ml.

Sox-10 (A-2) is available conjugated to agarose (sc-365692 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365692 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365692 PE), fluorescein (sc-365692 FITC), Alexa Fluor® 488 (sc-365692 AF488), Alexa Fluor® 546 (sc-365692 AF546), Alexa Fluor® 594 (sc-365692 AF594) or Alexa Fluor® 647 (sc-365692 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365692 AF680) or Alexa Fluor® 790 (sc-365692 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-365692 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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STORAGE

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

APPLICATIONS

Sox-10 (A-2) is recommended for detection of Sox-10 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-10 (A-2) is also recommended for detection of Sox-10 in additional species, including canine, bovine and porcine.

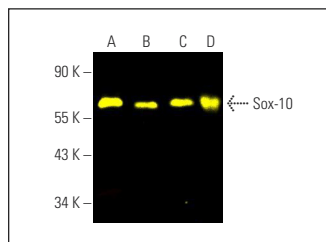
Suitable for use as control antibody for Sox-10 siRNA (h): sc-38420, Sox-10 siRNA (m): sc-38421, Sox-10 shRNA Plasmid (h): sc-38420-SH, Sox-10 shRNA Plasmid (m): sc-38421-SH, Sox-10 shRNA (h) Lentiviral Particles: sc-38420-V and Sox-10 shRNA (m) Lentiviral Particles: sc-38421-V.

Sox-10 (A-2) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

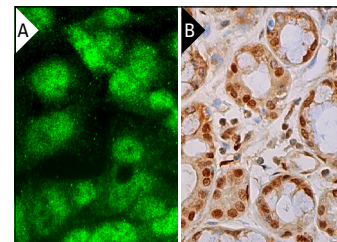
Molecular Weight of Sox-10: 58 kDa.

Positive Controls: SK-MEL-24 whole cell lysate: sc-364259, C6 whole cell lysate: sc-364373 or A-375 cell lysate: sc-3811.

DATA



Sox-10 (A-2) Alexa Fluor® 488: sc-365692 AF488. Direct fluorescent western blot analysis of Sox-10 expression in SK-MEL-24 (A), A-375 (B) and C6 (C) whole cell lysates and human prostate tissue extract (D). Blocked with UltraCruz® Blocking Reagent: sc-516214.



Sox-10 (A-2): sc-365692. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human salivary gland tissue showing nuclear and cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS

1. Keith, J.L., et al. 2013. Clinical neuropathology practice guide 6-2013: morphology and an appropriate immunohistochemical screening panel aid in the identification of synovial sarcoma by neuropathologists. *Clin. Neuropathol.* 32: 461-470.
2. Sato, T., et al. 2022. Hyaluronic acid and its receptor CD44, acting through TMEM2, inhibit morphological differentiation in oligodendroglial cells. *Biochem. Biophys. Res. Commun.* 624: 102-111.
3. Hosoya, M., et al. 2023. Distribution of macrophages in the developing cochlea of the common marmoset, a primate model animal. *Front. Immunol.* 14: 1229414.

RESEARCH USE

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