

Sox-4 (B-7): sc-518016

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: SOX4 (human) mapping to 6p22.3; Sox4 (mouse) mapping to 13 A3.1.

SOURCE

Sox-4 (B-7) is a mouse monoclonal antibody raised against amino acids 281-370 mapping within an internal region of Sox-4 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-518016 X, 200 µg/0.1 ml.

Sox-4 (B-7) is available conjugated to agarose (sc-518016 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518016 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518016 PE), fluorescein (sc-518016 FITC), Alexa Fluor® 488 (sc-518016 AF488), Alexa Fluor® 546 (sc-518016 AF546), Alexa Fluor® 594 (sc-518016 AF594) or Alexa Fluor® 647 (sc-518016 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518016 AF680) or Alexa Fluor® 790 (sc-518016 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Sox-4 (B-7) is recommended for detection of Sox-4 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

Sox-4 (B-7) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

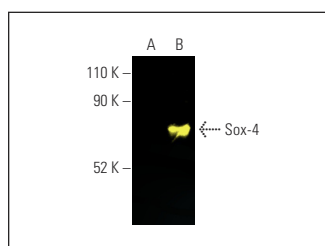
Molecular Weight of Sox-4: 47 kDa.

Positive Controls: human Sox-4 transfected HEK293T whole cell lysate.

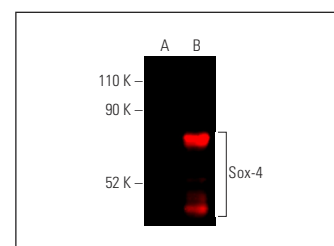
RECOMMENDED SUPPORT REAGENTS

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 (B-7) Alexa Fluor® 488: sc-518016 AF488. Direct fluorescent western blot analysis of Sox-4 expression in non-transfected HEK293T (A) and human Sox-4 transfected HEK293T (B) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214.



Sox-4 (B-7): sc-518016. Near-Infrared western blot analysis of Sox-4 expression in non-transfected HEK293T (A) and human Sox-4 transfected HEK293T (B) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG₁ BP-CFL 680: sc-533665.

SELECT PRODUCT CITATIONS

- Luo, C., et al. 2020. lncRNA XIST promotes glioma proliferation and metastasis through miR-133a/SOX4. *Exp. Ther. Med.* 19: 1641-1648.
- Zhang, J., et al. 2020. Long non-coding RNA NNT-AS1 knockdown represses the progression of gastric cancer via modulating the miR-142-5p/SOX4/Wnt/β-catenin signaling pathway. *Mol. Med. Rep.* 22: 687-696.
- Liang, L.M., et al. 2021. Splicing factor SRSF6 mediates pleural fibrosis. *JCI Insight* 6: e146197.
- Miyamoto, R., et al. 2021. HOXA9 promotes MYC-mediated leukemogenesis by maintaining gene expression for multiple anti-apoptotic pathways. *Elife* 10: e64148.
- Xu, G., et al. 2021. miRNA-214-5p inhibits prostate cancer cell proliferation by targeting SOX4. *World J. Surg. Oncol.* 19: 338.
- Xia, G., et al. 2022. hsa_circ_0000218/hsa-miR-139-3p/SOX4 regulatory feedback circuit influences the proliferation and apoptosis of gastric cancer cells. *Cytotechnology* 74: 89-98.

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.

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