SANTA CRUZ BIOTECHNOLOGY, INC.

Sox-6 (A-4): sc-393314

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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: SOX6 (human) mapping to 11p15.2; Sox6 (mouse) mapping to 7 F1.

SOURCE

Sox-6 (A-4) is a mouse monoclonal antibody raised against amino acids 506-600 of Sox-6 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} 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-393314 X, 200 µg/0.1 ml.

Sox-6 (A-4) is available conjugated to agarose (sc-393314 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393314 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393314 PE), fluorescein (sc-393314 FITC), Alexa Fluor® 488 (sc-393314 AF488), Alexa Fluor® 546 (sc-393314 AF546), Alexa Fluor® 594 (sc-393314 AF594) or Alexa Fluor® 647 (sc-393314 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393314 AF680) or Alexa Fluor® 790 (sc-393314 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Sox-6 (A-4) is recommended for detection of Sox-6 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).

Suitable for use as control antibody for Sox-6 siRNA (h): sc-36531, Sox-6 siRNA (m): sc-36532, Sox-6 shRNA Plasmid (h): sc-36531-SH, Sox-6 shRNA Plasmid (m): sc-36532-SH, Sox-6 shRNA (h) Lentiviral Particles: sc-36531-V and Sox-6 shRNA (m) Lentiviral Particles: sc-36532-V.

Sox-6 (A-4) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

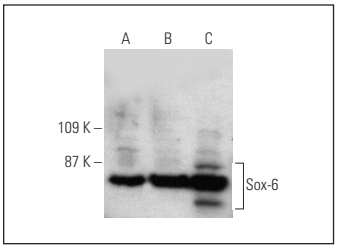
Molecular Weight of Sox-6: 90 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HeLa nuclear extract: sc-2120 or Jurkat nuclear extract: sc-2132.

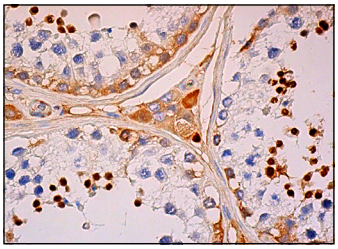
STORAGE

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

DATA



Sox-6 (A-4): sc-393314. Direct western blot analysis of Sox-6 expression in HeLa whole cell lysate (**A**) and HeLa (**B**) and Jurkat (**C**) nuclear extracts.



Sox-6 (A-4): sc-393314. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing nuclear staining of subset of cells in seminiferous ducts and cytoplasmic staining of Leydig cells.

SELECT PRODUCT CITATIONS

1. Goto, H., et al. 2018. Loss of Mob1a/b in mice results in chondrodysplasia due to YAP1/TAZ-TEAD-dependent repression of SOX9. Development 145: dev159244.
2. Liang, L., et al. 2019. Deubiquitylase USP7 regulates human terminal erythroid differentiation by stabilizing GATA1. Haematologica 104: 2178-2187.
3. Georgieva, V.S., et al. 2020. Ablation of the miRNA cluster 24 has profound effects on extracellular matrix protein abundance in cartilage. Int. J. Mol. Sci. 21: 4112.
4. Marchetto, A., et al. 2020. Oncogenic hijacking of a developmental transcription factor evokes vulnerability toward oxidative stress in Ewing sarcoma. Nat. Commun. 11: 2423.
5. Feng, L., et al. 2022. MicroRNA-378 contributes to osteoarthritis by regulating chondrocyte autophagy and bone marrow mesenchymal stem cell chondrogenesis. Mol. Ther. Nucleic Acids 28: 328-341.
6. Ji, J., et al. 2022. FBXO2 targets glycosylated SUN2 for ubiquitination and degradation to promote ovarian cancer development. Cell Death Dis. 13: 442.
7. Tate, G. 2023. SRY-box transcription factor 6 is expressed not only in the dorsal but also in the ventral zone of the neural tube and is highly expressed in the notochord and chordoma. Acta Histochem. Cytochem. 56: 55-58.
8. Tan, X., et al. 2024. Large-scale genomic and transcriptomic analyses elucidate the genetic basis of high meat yield in chickens. J. Adv. Res. 55: 1-16.

RESEARCH USE

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