SANTA CRUZ BIOTECHNOLOGY, INC.

Sox-18 (H-140): sc-20100

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. Sox-18 is a 384 amino acid nuclear protein that contains one HMG box DNA-binding domain and belongs to the Sox family of transcriptional regulators.

CHROMOSOMAL LOCATION

Genetic locus: SOX18 (human) mapping to 20q13.33; Sox18 (mouse) mapping to 2 H4.

SOURCE

Sox-18 (H-140) is a rabbit polyclonal antibody raised against amino acids 161-300 mapping near the C-terminus of Sox-18 of human origin.

PRODUCT

Each vial contains 200 µg IgG 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-20100 X, 200 µg/0.1 ml.

STORAGE

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

APPLICATIONS

Sox-18 (H-140) is recommended for detection of Sox-18 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)], 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-18 siRNA (h): sc-36527, Sox-18 siRNA (m): sc-36528, Sox-18 shRNA Plasmid (h): sc-36527-SH, Sox-18 shRNA Plasmid (m): sc-36528-SH, Sox-18 shRNA (h) Lentiviral Particles: sc-36527-V and Sox-18 shRNA (m) Lentiviral Particles: sc-36528-V.

Sox-18 (H-140) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

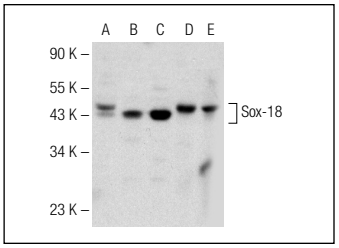
Molecular Weight of Sox-18: 45 kDa.

Positive Controls: Sox-18 (h): 293T Lysate: sc-111552, mouse heart extract: sc-2254 or rat brain extract: sc-2392.

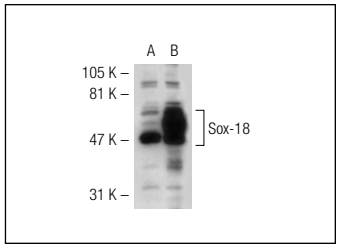
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Sox-18 (H-140): sc-20100. Western blot analysis of Sox-18 expression in L6 (**A**), HeLa (**B**) and IMR-32 (**C**) whole cell lysates and mouse heart (**D**) and rat brain (**E**) tissue extracts.



Sox-18 (H-140): sc-20100. Western blot analysis of Sox-18 expression in non-transfected: sc-117752 (**A**) and human Sox-18 transfected: sc-111552 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. García-Ramírez, M., et al. 2005. Transcription factor Sox-18 is expressed in human coronary atherosclerotic lesions and regulates DNA synthesis and vascular cell growth. Arterioscler. Thromb. Vasc. Biol. 25: 2398-2403.
2. Petrovic, I., et al. 2010. VEGF and TNF up-regulate, NSAID down-regulate SOX18 protein level in HUVEC. Cent. Eur. J. Biol. 5: 427-434.
3. Petrovic, I., et al. 2010. Early growth response protein 1 acts as an activator of SOX18 promoter. Exp. Mol. Med. 42: 132-142.
4. Kim do, K., et al. 2011. p38 mitogen-activated protein kinase and PI3-kinase are involved in up-regulation of µ opioid receptor transcription induced by cycloheximide. J. Neurochem. 116: 1077-1087.
5. Milivojevic, M., et al. 2013. Construction and functional analysis of novel dominant-negative mutant of human SOX18 protein. Biochemistry 78: 1287-1292.

RESEARCH USE

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