SANTA CRUZ BIOTECHNOLOGY, INC.

Sox-18 (h): 293T Lysate: sc-111552

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.

REFERENCES

1. Dunn, T.L., et al. 1995. Sequence and expression of Sox-18 encoding a new HMG-box transcription factor. Gene 161: 223-225.
2. Azuma, T., et al. 2000. cDNA cloning, tissue expression, and chromosome mapping of human homolog of Sox-18. J. Hum. Genet. 45: 192-195.
3. Hosking, B.M., et al. 2001. Sox-18 directly interacts with MEF2C in endothelial cells. Biochem. Biophys. Res. Commun. 287: 493-500.
4. Wilson, M., et al. 2002. Matching Sox: partner proteins and co-factors of the Sox family of transcriptional regulators. Curr. Opin. Genet. Dev. 12: 441-446.
5. Schepers, G.E., et al. 2002. Twenty pairs of Sox: extent, homology, and nomenclature of the mouse and human sox transcription factor gene families. Dev. Cell 3: 167-170.
6. Irrthum, A., et al. 2003. Mutations in the transcription factor gene Sox-18 underlie recessive and dominant forms of hypotrichosis-lymphedema-telangiectasia. Am. J. Hum. Genet. 72: 1470-1478.
7. 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.
8. Young, N., et al. 2006. Effect of disrupted Sox-18 transcription factor function on tumor growth, vascularization, and endothelial development. J. Natl. Cancer Inst. 98: 1060-1067.
9. Fontijn, R.D., et al. 2008. Sox-18 controls endothelial-specific claudin-5 gene expression and barrier function. Am. J. Physiol. Heart Circ. Physiol. 294: H891-H900.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

CHROMOSOMAL LOCATION

Genetic locus: SOX18 (human) mapping to 20q13.33.

PRODUCT

Sox-18 (h): 293T Lysate represents a lysate of human Sox-18 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Sox-18 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Sox-18 antibodies. Recommended use: 10-20 µl per lane.

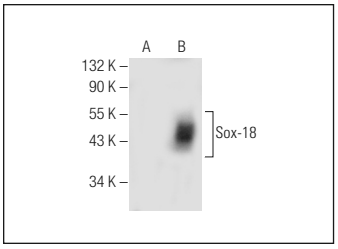
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Sox-18 (E-11): sc-376166 is recommended as a positive control antibody for Western Blot analysis of enhanced human Sox-18 expression in Sox-18 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



Sox-18 (E-11): sc-376166. 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.

RESEARCH USE

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