

Sox-18 (D-8): sc-166025

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

- Dunn, T.L., et al. 1995. Sequence and expression of Sox-18 encoding a new HMG-box transcription factor. *Gene* 161: 223-225.
- Azuma, T., et al. 2000. cDNA cloning, tissue expression, and chromosome mapping of human homolog of Sox-18. *J. Hum. Genet.* 45: 192-195.
- Hosking, B.M., et al. 2001. Sox-18 directly interacts with MEF2C in endothelial cells. *Biochem. Biophys. Res. Commun.* 287: 493-500.

CHROMOSOMAL LOCATION

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

SOURCE

Sox-18 (D-8) is a mouse monoclonal antibody raised against amino acids 161-300 mapping near the C-terminus of Sox-18 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-166025 X, 200 µg/0.1 ml.

Sox-18 (D-8) is available conjugated to agarose (sc-166025 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166025 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166025 PE), fluorescein (sc-166025 FITC), Alexa Fluor® 488 (sc-166025 AF488), Alexa Fluor® 546 (sc-166025 AF546), Alexa Fluor® 594 (sc-166025 AF594) or Alexa Fluor® 647 (sc-166025 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166025 AF680) or Alexa Fluor® 790 (sc-166025 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

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 (D-8) is recommended for detection of Sox-18 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).

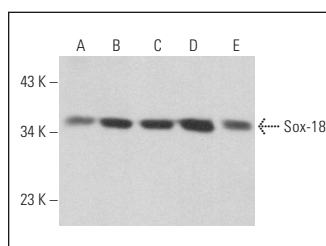
Suitable for use as control antibody for Sox-18 siRNA (h): sc-36527, Sox-18 siRNA (m): sc-36528, Sox-18 shRNA Plasmid (h): sc-36527-SH, Sox-18 shRNA Plasmid (m): sc-36528-SH, Sox-18 shRNA (h) Lentiviral Particles: sc-36527-V and Sox-18 shRNA (m) Lentiviral Particles: sc-36528-V.

Sox-18 (D-8) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Sox-18: 45 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, A549 cell lysate: sc-2413 or JAR cell lysate: sc-2276.

DATA



Sox-18 (D-8): sc-166025. Western blot analysis of Sox-18 expression in HeLa (A), A549 (B), JAR (C), F9 (D) and A-10 (E) whole cell lysates.

SELECT PRODUCT CITATIONS

- Olbromski, M., et al. 2016. MicroRNAs modulate the expression of the Sox-18 transcript in lung squamous cell carcinoma. *Oncol. Rep.* 36: 2884-2892.
- Nowak, A., et al. 2018. Role of nestin expression in angiogenesis and breast cancer progression. *Int. J. Oncol.* 52: 527-535.
- Abbasi, S., et al. 2020. Distinct regulatory programs control the latent regenerative potential of dermal fibroblasts during wound healing. *Cell Stem Cell* 27: 396-412.e6.
- Korhonen, A., et al. 2021. Proliferative diabetic retinopathy transcriptomes reveal angiogenesis, anti-angiogenic therapy escape mechanisms, fibrosis and lymphatic involvement. *Sci. Rep.* 11: 18810.
- Yang, F., et al. 2022. Single-cell sequencing reveals the new existence form of dermal papilla cells in the hair follicle regeneration of cashmere goats. *Genomics* 114: 110316.

RESEARCH USE

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