

Sall4 (EE-30): sc-101147

BACKGROUND

Sall3 (SALL3, sal-like 3) and Sall4 (SALL4, sal-like 4) are mammalian homologs of the *Drosophila* region-specific homeotic gene spalt, which encodes a zinc finger-containing transcription regulator. *Drosophila* spalt is an essential genetic component required for the specification of posterior head and anterior tail as opposed to trunk. Sall3 is expressed at 24 weeks of gestation in several regions of the human fetal brain including neurons of the hippocampus formation and of mediodorsal and ventrolateral thalamic nuclei, Purkinje cells of the cerebellum, and a subset of neurons in the brainstem. Sall4 expression in early mouse embryos is gradually confined to the head region and the primitive streak, followed by prominent expression in the developing midbrain, branchial arches, limbs and genital papilla.

REFERENCES

- Nielsen, T.O., et al. 2003. Tissue microarray validation of epidermal growth factor receptor and Sall2 in synovial sarcoma with comparison to tumors of similar histology. *Am. J. Pathol.* 163: 1449-1456.
- Sato, A., et al. 2003. Zinc finger protein Sall2 is not essential for embryonic and kidney development. *Mol. Cell. Biol.* 23: 62-69.

CHROMOSOMAL LOCATION

Genetic locus: SALL4 (human) mapping to 20q13.2; Sall4 (mouse) mapping to 2 H3.

SOURCE

Sall4 (EE-30) is a mouse monoclonal antibody raised against recombinant Sall4 of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Sall4 (EE-30) is recommended for detection of Sall4 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), 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 Sall4 siRNA (h): sc-45808, Sall4 siRNA (m): sc-45809, Sall4 shRNA Plasmid (h): sc-45808-SH, Sall4 shRNA Plasmid (m): sc-45809-SH, Sall4 shRNA (h) Lentiviral Particles: sc-45808-V and Sall4 shRNA (m) Lentiviral Particles: sc-45809-V.

Molecular Weight of Sall4 isoform A: 165 kDa.

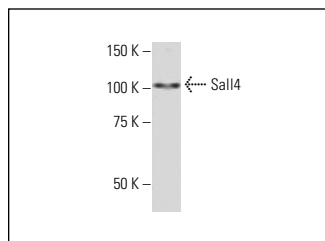
Molecular Weight of Sall4 isoform B: 95 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, Hep G2 cell lysate: sc-2227 or rat liver extract: sc-2395.

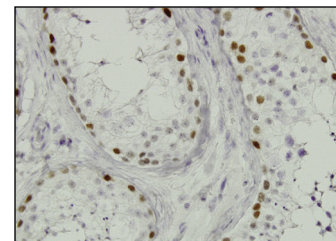
STORAGE

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

DATA



Sall4 (EE-30): sc-101147. Western blot analysis of Sall4 expression in HeLa nuclear extract.



Sall4 (EE-30): sc-101147. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human testis tissue showing nuclear localization.

SELECT PRODUCT CITATIONS

- Di Tomaso, T., et al. 2010. Immunobiological characterization of cancer stem cells isolated from glioblastoma patients. *Clin. Cancer Res.* 16: 800-813.
- Preda, O., et al. 2012. Urothelial carcinoma of the renal pelvis with simultaneous trophoblastic and malignant clear cell endodermal-type differentiation. *Virchows Arch.* 460: 353-356.
- Bai, S., et al. 2013. Immunohistochemical studies of metastatic germ-cell tumors in retroperitoneal dissection specimens: a sensitive and specific panel. *Int. J. Surg. Pathol.* 21: 342-351.
- Svingen, T., et al. 2014. Validation of endogenous normalizing genes for expression analyses in adult human testis and germ cell neoplasms. *Mol. Hum. Reprod.* 20: 709-718.
- Li, A., et al. 2015. Sall4 is a new target in endometrial cancer. *Oncogene* 34: 63-72.
- Yong, K.J., et al. 2016. Targeting Sall4 by entinostat in lung cancer. *Oncotarget* 7: 75425-75440.
- Yuan, Y., et al. 2017. Geminin deletion in pre-meiotic DNA replication stage causes spermatogenesis defect and infertility. *J. Reprod. Dev.* 63: 481-488.
- Adachi, K., et al. 2018. Esrrb unlocks silenced enhancers for reprogramming to naive pluripotency. *Cell Stem Cell* 23: 266-275.e6.
- Xie, C., et al. 2019. Targeting TRPV1 on cellular plasticity regulated by Ovov 2 and Zeb 1 in hepatocellular carcinoma. *Biomed. Pharmacother.* 118: 109270.
- Chen, M., et al. 2019. Sall4 promotes the tumorigenicity of cervical cancer cells through activation of the Wnt/β-catenin pathway via CTNNB1. *Cancer Sci.* 110: 2794-2805.
- Abed, M., et al. 2019. The Gag protein PEG10 binds to RNA and regulates trophoblast stem cell lineage specification. *PLoS ONE* 14: e0214110.

RESEARCH USE

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