

Sall4 (F-2): sc-377432



The Power to Question

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

1. Borozdin, W., et al. 2004. Novel mutations in the gene Sall4 provide further evidence for acro-renal-ocular and Okihiro syndromes being allelic entities, and extend the phenotypic spectrum. *J. Med. Genet.* 41: e102.
2. Li, D., et al. 2004. p150^{Sall2} is a p53-independent regulator of p21^{WAF1/CIP}. *Mol. Cell. Biol.* 24: 3885-3893.
3. Parrish, M., et al. 2004. Loss of the Sall3 gene leads to palate deficiency, abnormalities in cranial nerves, and perinatal lethality. *Mol. Cell. Biol.* 24: 7102-7112.
4. Sato, A., et al. 2004. Sall1, a causative gene for Townes-Brocks syndrome, enhances the canonical Wnt signaling by localizing to heterochromatin. *Biochem. Biophys. Res. Commun.* 319: 103-113.
5. Takasato, M., et al. 2004. Identification of kidney mesenchymal genes by a combination of microarray analysis and Sall1-GFP knockin mice. *Mech. Dev.* 121: 547-557.
6. Hoei-Hansen, C.E., et al. 2004. Identification of genes differentially expressed in testes containing carcinoma *in situ*. *Mol. Hum. Reprod.* 10: 423-431.
7. Ohgane, J., et al. 2004. The Sall3 locus is an epigenetic hotspot of aberrant DNA methylation associated with placentomegaly of cloned mice. *Genes Cells* 9: 253-260.
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CHROMOSOMAL LOCATION

Genetic locus: Sall4 (mouse) mapping to 2 H3.

SOURCE

Sall4 (F-2) is a mouse monoclonal antibody raised against amino acids 671-890 mapping within an internal region of Sall4 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} 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-377432 X, 200 µg/0.1 ml.

APPLICATIONS

Sall4 (F-2) is recommended for detection of Sall4 of mouse 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Sall4 siRNA (m): sc-45809, Sall4 shRNA Plasmid (m): sc-45809-SH and Sall4 shRNA (m) Lentiviral Particles: sc-45809-V.

Sall4 (F-2) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Sall4 isoform A: 165 kDa.

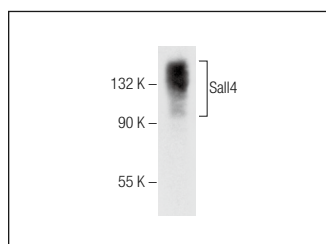
Molecular Weight of Sall4 isoform B: 95 kDa.

Positive Controls: F9 cell lysate: sc-2245 or P19 cell lysate: sc-24760.

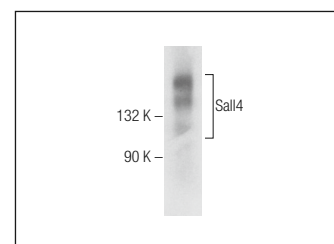
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Sall4 (F-2): sc-377432. Western blot analysis of Sall4 expression in F9 whole cell lysate.



Sall4 (F-2): sc-377432. Western blot analysis of Sall4 expression in P19 whole cell lysate.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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