

Sall4 (D-13): sc-46046

BACKGROUND

Sall3 (Sall3, sal-like 3) and SALL4 (Sall4, sal-like 4) are mammalian homologs of the *Drosophila* region-specific homeotic gene spalt (sal), which encodes a zinc finger-containing transcription regulator. *Drosophila* spalt (sal) 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.
- Wabbels, B.K., et al. 2004. No evidence of Sall4-mutations in isolated sporadic duane retraction "syndrome" (DURS). *Am. J. Med. Genet.* 131: 216-218.
- 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.
- Borozdin, W., et al. 2004. Sall4 deletions are a common cause of Okihiro and acro-renal-ocular syndromes and confirm haploinsufficiency as the pathogenic mechanism. *J. Med. Genet.* 41: e113.
- Kohlhase, J., et al. 2004. Mutations in Sall4 in malformed father and daughter postulated previously due to reflect mutagenesis by thalidomide. *Birth Defects Res. A Clin. Mol. Teratol.* 70: 550-551.

CHROMOSOMAL LOCATION

Genetic locus: SALL4 (human) mapping to 20q13.2.

SOURCE

Sall4 (D-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Sall4 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.

Blocking peptide available for competition studies, sc-46046 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-46046 X, 200 µg/0.1 ml.

APPLICATIONS

Sall4 (D-13) is recommended for detection of Sall4 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 (h): sc-45808, Sall4 shRNA Plasmid (h): sc-45808-SH and Sall4 shRNA (h) Lentiviral Particles: sc-45808-V.

Sall4 (D-13) 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: HeLa nuclear extract: sc-2120, Hep G2 cell lysate: sc-2227 or NTERA-2 cl.D1 whole cell lysate: sc-364181.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

- Abboud, N., et al. 2015. A cohesin-OCT4 complex mediates Sox enhancers to prime an early embryonic lineage. *Nat. Commun.* 6: 6749.

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 or our catalog for detailed protocols and support products.


 MONOS
 Satisfation
 Guaranteed

Try **Sall4 (G-3): sc-166033** or **Sall4 (EE-30): sc-101147**, our highly recommended monoclonal alternatives to Sall4 (D-13).