

# Sall4 (G-3): sc-166033

## 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. 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.
2. Sato, A., et al. 2003. Zinc finger protein Sall2 is not essential for embryonic and kidney development. *Mol. Cell. Biol.* 23: 62-69.
3. Wabbels, B.K., et al. 2004. Clinical and molecular genetic findings in isolated sporadic Duane syndrome. *Klin. Monbl. Augenheilkd.* 221: 849-853.

## CHROMOSOMAL LOCATION

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

## SOURCE

Sall4 (G-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1017-1053 at the C-terminus of Sall4 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> 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-166033 X, 200 µg/0.1 ml.

Sall4 (G-3) is available conjugated to agarose (sc-166033 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166033 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166033 PE), fluorescein (sc-166033 FITC), Alexa Fluor® 488 (sc-166033 AF488), Alexa Fluor® 546 (sc-166033 AF546), Alexa Fluor® 594 (sc-166033 AF594) or Alexa Fluor® 647 (sc-166033 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166033 AF680) or Alexa Fluor® 790 (sc-166033 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-166033 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## RESEARCH USE

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

## APPLICATIONS

Sall4 (G-3) is recommended for detection of Sall4 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Sall4 (G-3) is also recommended for detection of Sall4 in additional species, including canine and porcine.

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.

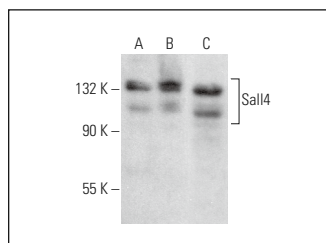
Sall4 (G-3) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Sall4 isoform A: 165 kDa.

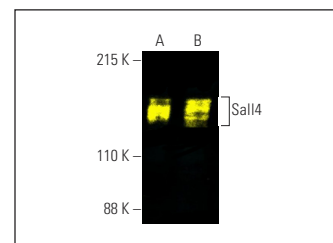
Molecular Weight of Sall4 isoform B: 95 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, F9 cell lysate: sc-2245 or P19 cell lysate: sc-24760.

## DATA



Sall4 (G-3): sc-166033. Western blot analysis of Sall4 expression in Hep G2 (A), SJRH30 (B) and AT3B-1 (C) whole cell lysates.



Sall4 (G-3) Alexa Fluor® 488: sc-166033 AF488. Direct fluorescent western blot analysis of Sall4 expression in F9 (A) and P19 (B) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214.

## SELECT PRODUCT CITATIONS

1. Ye, J., et al. 2016. Pluripotent stem cells induced from mouse neural stem cells and small intestinal epithelial cells by small molecule compounds. *Cell Res.* 26: 34-45.
2. Wang, W., et al. 2021. Inhibition of Syk promotes chemical reprogramming of fibroblasts via metabolic rewiring and H2 S production. *EMBO J.* 40: e106771.
3. Lospinoso Severini, L., et al. 2024. SALL4 is a CRL3<sup>REN/KCTD11</sup> substrate that drives Sonic Hedgehog-dependent medulloblastoma. *Cell Death Differ.* 31: 170-187.

## STORAGE

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