

# Sall3 (E-20): sc-46040

## 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

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- 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. Clinical and molecular genetic findings in isolated sporadic Duane syndrome. *Klin. Monatsbl. Augenheilkd.* 221: 849-853.
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- Kohlhase, J., et al. 2004. Mutations in Sall4 in malformed father and daughter postulated previously due to reflect mutagenesis by thalidomide. *Birth Defects Res. Part A Clin. Mol. Teratol.* 70: 550-551.
- 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.
- 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.

## SOURCE

Sall3 (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Sall3 of human origin.

## STORAGE

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

## 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-46040 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-46040 X, 200 µg/0.1 ml.

## APPLICATIONS

Sall3 (E-20) is recommended for detection of Sall3 and, to a lesser extent, Sall1 and Sall4 of mouse, rat and 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).

Sall3 (E-20) is also recommended for detection of Sall3 and, to a lesser extent, Sall1 and Sall4 in additional species, including equine, canine, porcine and avian.

Sall3 (E-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Sall3: 163 kDa.

Positive Controls: KNRK nuclear extract: sc-2141 or NIH/3T3 nuclear extract: sc-2138.

## 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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.