

# Anti-Sall4 Antibody [A7A6]

HA600089



<b>Product Type:</b>	Mouse monoclonal IgG1, primary antibodies
<b>Species reactivity:</b>	Human
<b>Applications:</b>	WB, IF-Cell, IHC-P, FC
<b>Molecular Wt:</b>	Predicted band size: 112 kDa
<b>Clone number:</b>	A7A6

**Description:** Sal-like protein 4 (SALL4) is a transcription factor encoded by a member of the Spalt-like (SALL) gene family, SALL4. The SALL genes were identified based on their sequence homology to Spalt, which is a homeotic gene originally cloned in *Drosophila melanogaster* that is important for terminal trunk structure formation in embryogenesis and imaginal disc development in the larval stages. There are four human SALL proteins (SALL1, 2, 3, and 4) with structural homology and playing diverse roles in embryonic development, kidney function, and cancer. The SALL4 gene encodes at least three isoforms, termed A, B, and C, through alternative splicing, with the A and B forms being the most studied. SALL4 can alter gene expression changes through its interaction with many co-factors and epigenetic complexes. It is also known as a key embryonic stem cell (ESC) factor. The various SALL4-null mouse models mimic human mutations in the SALL4 gene, which were shown to cause developmental problems in patients with Okhiro/Duane-Radial-ray syndrome. These individuals frequently have family history of hand malformation and eye movement disorders.

**Immunogen:** Recombinant protein within human Sall4 aa 903-1,053/1,053

**Positive control:** NCCIT cell lysates, NCCIT, human seminoma tissue, Hela.

**Subcellular location:** Cytoplasm, Nucleus.

**Database links:** SwissProt: Q9UJQ4 Human

**Recommended Dilutions:**

<b>WB</b>	1:2,000
<b>IF-Cell</b>	1:100
<b>IHC-P</b>	1:600
<b>FC</b>	1:500-1:10,000

**Storage Buffer:** PBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

**Purity:** Protein G affinity purified.

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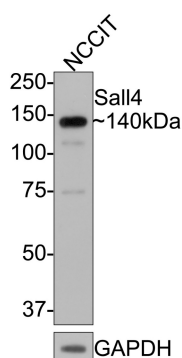
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## Images



**Fig1:** Western blot analysis of Sall4 on NCCIT cell lysates with Mouse anti-Sall4 antibody (HA600089) at 1/2,000 dilution.

Lysates/proteins at 10 µg/Lane.

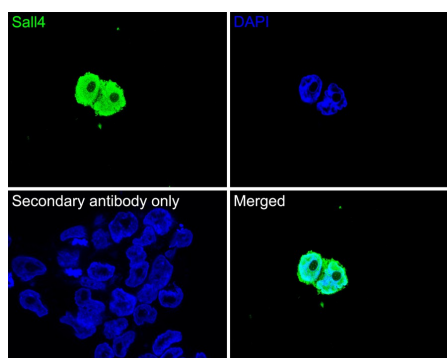
Predicted band size: 112 kDa

Observed band size: 140/110/75 kDa

Exposure time: 1 minute;

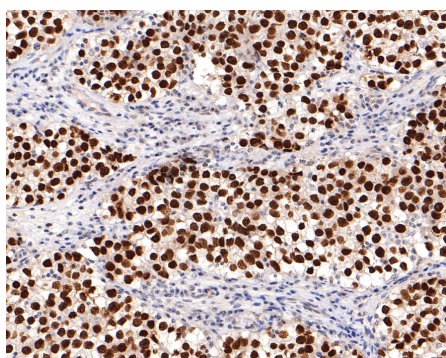
8% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA600089) at 1/2,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1:100,000 dilution was used for 1 hour at room temperature.



**Fig2:** Immunocytochemistry analysis of NCCIT cells labeling Sall4 with Mouse anti-Sall4 antibody (HA600089) at 1/100 dilution.

Cells were fixed in 4% paraformaldehyde for 30 minutes, permeabilized with 0.1% Triton X-100 in PBS for 15 minutes, and then blocked with 2% BSA for 30 minutes at room temperature. Cells were then incubated with Mouse anti-Sall4 antibody (HA600089) at 1/100 dilution in 2% BSA overnight at 4 °C. Goat Anti-Mouse IgG H&L (iFluor™ 488, HA1125) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.



**Fig3:** Immunohistochemical analysis of paraffin-embedded human seminoma tissue with Mouse anti-Sall4 antibody (HA600089) at 1/600 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (HA600089) at 1/600 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

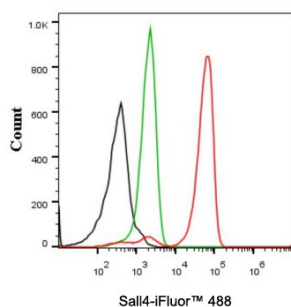
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**Fig4:** Flow cytometric analysis of NCCIT cells labeling Sall4.

Cells were fixed and permeabilized, and then blocked with 2% negative goat serum for 15 minutes at room temperature. Then stained with the primary antibody (HA600089, 0.1ug/ml) (red) compared with Mouse IgG1 Isotype Control (green). After incubation of the primary antibody at +4 °C for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Mouse IgG Secondary antibody (HA1125) at 1/1,000 dilution for 30 minutes at +4 °C. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

**Note:** All products are “FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE”.

### Background References

1. Zhang X. et. al. SALL4 activates TGF-beta/SMAD signaling pathway to induce EMT and promote gastric cancer metastasis. *Cancer Manag Res.* 2018 Oct
2. Chen M. et. al. SALL4 promotes the tumorigenicity of cervical cancer cells through activation of the Wnt/beta-catenin pathway via CTNNB1. *Cancer Sci.* 2019 Sep

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