

Anti-Sall4 Antibody

HA500482



Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IHC-P
Molecular Wt:	112 kDa

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.[7][8] 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.[9] 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 Okihiro/Duane-Radial-ray syndrome. SALL4 expression is low to undetectable in most adult tissues with the exception of germ cells and human blood progenitor cells. In breast cancer, Signal transducer and activator of transcription 3 (STAT3) has been reported to directly activate SALL4 expression.

Immunogen: Recombinant protein within human Sall4 aa 1-200 / 1,053.

Positive control: CAL-62 cell lysates, human seminoma tissue.

Subcellular location: Nucleus, Cytoplasm.

Database links: SwissProt: Q9UJQ4 Human

Recommended Dilutions:

WB 1:500-1:2,000

IHC-P 1:200-1:1,000

Storage Buffer: 1*TBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4°C after thawing. Aliquot store at -20°C. Avoid repeated freeze / thaw cycles.

Purity: Immunogen affinity purified.

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Images

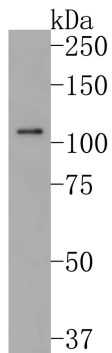


Fig1: Western blot analysis of Sall4 on CAL-62 cell lysates. Proteins were transferred to a PVDF membrane and blocked with 5% NFDm/TBST for 1 hour at room temperature. The primary antibody (HA500482, 1/1,000) was used in 5% NFDm/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:200,000 dilution was used for 1 hour at room temperature.

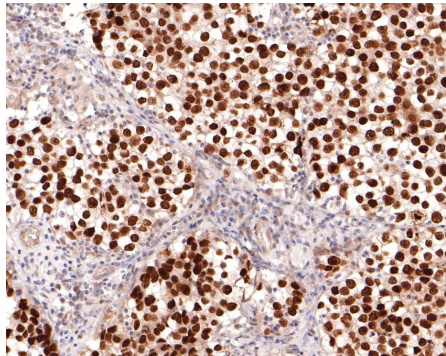


Fig2: Immunohistochemical analysis of paraffin-embedded human seminoma tissue using anti-Sall4 antibody. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 20 minutes. The tissues were blocked in 1% BSA for 30 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA500482, 1/600) for 30 minutes 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.

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. Matyskiela ME. et. al. SALL4 mediates teratogenicity as a thalidomide-dependent cereblon substrate. *Nat Chem Biol.* 2018 Oct