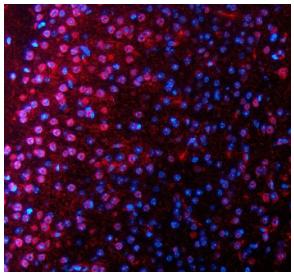
SALL2 Antibody / Spalt-like transcription factor 2 (FY12467)

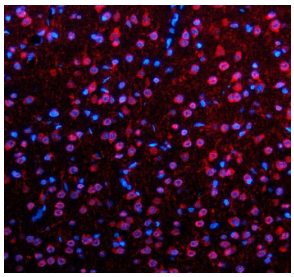
Catalog No.	Formulation	Size
FY12467	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

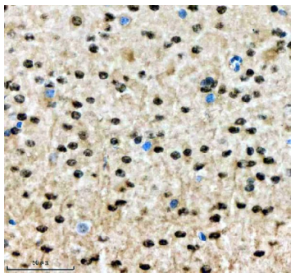
Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q9Y467
Localization	Nuclear
Applications	Western Blot: 0.25-0.5ug/ml Immunohistochemistry: 2-5ug/ml Immunofluorescence: 5ug/ml Immunocytochemistry/Immunofluorescence: 5ug/ml Flow cytometry: 1-3ug/million cells ELISA: 0.1-0.5ug/ml
Limitations	This SALL2 antibody is available for research use only.



Immunofluorescent staining of SALL2 using anti-SALL2 antibody (red). SALL2 was detected in a paraffin-embedded section of mouse brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/ml rabbit anti-SALL2 antibody overnight at 4oC. Cy3 Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37oC. The section was counterstained with DAPI nuclear stain (blue). Visualize using a fluorescence microscope and filter sets appropriate for the label used.



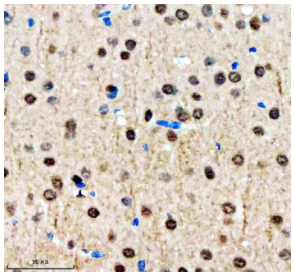
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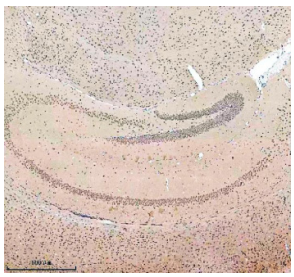
Immunohistochemical staining of SALL2 using anti-SALL2 antibody. SALL2 was detected in a paraffin-embedded section of mouse brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-SALL2 antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using an HRP secondary and DAB substrate.



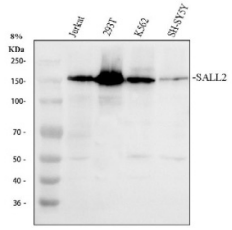
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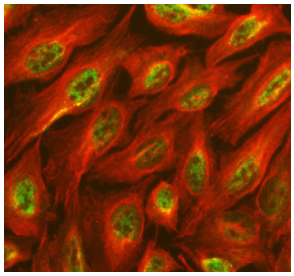
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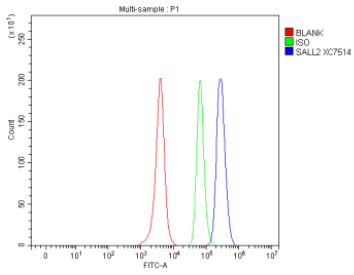
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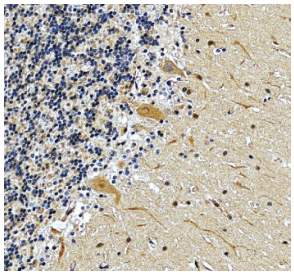
Western blot analysis of SALL2 using anti-SALL2 antibody. Electrophoresis was performed on a 8% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human Jurkat whole cell lysates, Lane 2: human 293T whole cell lysates, Lane 3: human K562 whole cell lysates, Lane 4: human SH-SY5Y whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-SALL2 antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using an ECL Plus Western Blotting Substrate. A prominent band was detected at approximately 150 kDa, which is higher than the predicted molecular weight (~105 kDa). This upshifted migration is consistent with published reports describing SALL2 (also referred to as p150 (Sal2)) as a ~150 kDa protein in human and ovarian carcinoma cells, likely reflecting isoform variation or post-translational modification.



Immunofluorescent staining of SALL2 using anti-SALL2 antibody (green) and anti-Beta Tubulin antibody (red). SALL2 was detected in an immunocytochemical section of U2OS cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/ml rabbit anti-SALL2 antibody and mouse anti-Beta Tubulin antibody overnight at 4oC. DyLight 488 Conjugated Goat Anti-Rabbit IgG and Cy3 Conjugated Goat Anti-Mouse IgG were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37oC. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry analysis of SH-SY5Y cells using anti-SALL2 antibody. Overlay histogram showing SH-SY5Y cells stained with (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-SALL2 antibody (1 ug/million cells) for 30 min at 20oC. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20oC. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Immunohistochemical staining of SALL2 using anti-SALL2 antibody. SALL2 was detected in a paraffin-embedded section of human cerebellum tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-SALL2 antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using an HRP secondary and DAB substrate.

Description

SALL2 antibody recognizes Spalt-like transcription factor 2, a zinc finger transcriptional regulator involved in embryonic development, stem cell maintenance, and tumor suppression. SALL2 belongs to the spalt-like family of transcription factors (SALL1-4), characterized by multiple C2H2-type zinc finger domains that bind DNA and regulate transcription of developmental and cell-cycle-related genes. The SALL2 antibody is commonly used in studies of neurogenesis, eye development, and cancer biology, where SALL2 functions as both a transcriptional activator and repressor depending on the cellular context.

SALL2 is encoded by the SALL2 gene located on human chromosome 14q11.2. The protein localizes primarily to the nucleus and regulates genes controlling cell proliferation, apoptosis, and differentiation. During development, SALL2 contributes to optic nerve formation, limb morphogenesis, and neural tube closure. It interacts with other transcription factors such as p53, WT1, and SP1, integrating growth factor signaling with chromatin remodeling. Its expression is regulated by developmental cues and stress responses, suggesting broad involvement in maintaining genomic stability and tissue integrity.

The SALL2 antibody detects multiple isoforms ranging from 100-150 kDa depending on splicing and post-translational modifications. Western blot analyses demonstrate nuclear enrichment, while immunohistochemistry reveals SALL2 expression in neural tissues, retina, and developing mesenchyme. Functionally, SALL2 acts as a tumor suppressor by promoting p21 expression and inhibiting uncontrolled cell proliferation. Loss or downregulation of SALL2 has been associated with glioblastoma, ovarian carcinoma, and other cancers. Conversely, aberrant expression can disrupt differentiation programs and promote oncogenic transformation under certain signaling conditions.

Research has also revealed SALL2's role in stem cell pluripotency and differentiation. It interacts with key developmental regulators, including OCT4 and SOX2, and influences chromatin accessibility at developmental gene loci. In neural systems, SALL2 supports axon guidance and neuronal survival, linking it to neurological disorders when dysregulated. NSJ Bioreagents offers a validated SALL2 antibody optimized for western blot, immunohistochemistry, and chromatin immunoprecipitation applications. This reagent enables precise analysis of SALL2 function in transcriptional regulation, cell fate determination, and tumor suppression.

Application Notes

Optimal dilution of the SALL2 antibody should be determined by the researcher.

Immunogen

E.coli-derived human SALL2 recombinant protein (Position: E23-H972) was used as the immunogen for the SALL2 antibody.

Storage

After reconstitution, the SALL2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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