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Store at -20C
#5850

Sall4 Antibody

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 80, 142	Source/Isotype: Rabbit	UniProt ID: #Q9UJQ4	Entrez-Gene Id: 57167
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Product Usage Information

Application

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Sall4 Antibody recognizes endogenous levels of total Sall4 protein, isoforms A and B. This antibody may also detect other Sall4 isoforms.

Species predicted to react based on 100% sequence homology

Monkey

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human Sall4 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Members of the *SALL* gene family encode putative zinc finger transcription factors highly expressed during development (1). Sall4 is expressed very early in development with other pluripotency regulators, such as Oct-4 and Nanog (2). Recent studies suggest Sall4 works as a master regulator that controls its own expression and the expression of Oct-4 in a transcriptional regulation feedback loop governing stem cell pluripotency and stem cell fate (2,3). Immunohistochemical studies indicate that Sall4 is a sensitive and specific diagnostic marker for primary germ cell tumors and yolk sac tumors (4,5). Research studies have shown that Sall4 is constitutively expressed in acute myeloid leukemia (AML) and is a probable effector of the Wnt/β-catenin signaling pathway in this disease (6). In addition, mutations in *SALL4* have been implicated in human malformation syndromes, including Duane-radial ray syndrome (Okhiro syndrome) and Acro-renal-ocular syndrome (7).

Background References

1. Sweetman, D. and Münsterberg, A. (2006) *Dev Biol* 293, 285-93.
2. Yang, J. et al. (2008) *Proc Natl Acad Sci USA* 105, 19756-61.
3. Yang, J. et al. (2010) *PLoS One* 5, e10766.
4. Mei, K. et al. (2009) *Mod Pathol* 22, 1628-36.
5. Miertus, J. et al. (2006) *Hum Genet* 119, 154-61.
6. Ma, Y. et al. (2006) *Blood* 108, 2726-35.
7. Al-Baradie, R. et al. (2002) *Am J Hum Genet* 71, 1195-9.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human

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