

#8459 Store at -20C

Sall4 (D16H12) Rabbit mAb

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

Product Usage Information**Application**

Western Blotting
Immunofluorescence (Immunocytochemistry)

Dilution

1:1000
1:100 - 1:400

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #86590.

Specificity/Sensitivity

Sall4 (D16H12) Rabbit mAb recognizes endogenous levels of total Sall4A and Sall4B proteins. Western blot analysis detects additional bands that are likely Sall4 isoforms.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala311 of human Sall4 protein.

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 **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: Human

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