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DLL4 (D7N3H) Rabbit mAb

#96406

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rev. 08/08/18

Entrez-Gene ID #54567
UniProt ID #Q9NR61

For Research Use Only. Not For Use In Diagnostic Procedures.

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP, IF-IC	H	75-80 kDa	Rabbit igG**
Endogenous			

Background: Notch signaling is activated upon engagement of the Notch receptor with its ligands, the DSL (Delta, Serrate, Lag2) proteins of single-pass type I membrane proteins. The DSL proteins contain multiple EGF-like repeats and a DSL domain that is required for binding to Notch (1,2). Five DSL proteins have been identified in mammals: Jagged1, Jagged2, Delta-like (DLL) 1, 3 and 4 (3). Ligand binding to the Notch receptor results in two sequential proteolytic cleavages of the receptor by the ADAM protease and the γ-secretase complex. The intracellular domain of Notch is released and then translocates to the nucleus where it activates transcription. Notch ligands may also be processed in a way similar to Notch, suggesting a bi-directional signaling through receptor-ligand interactions (4-6). DLL4 expression is highly restricted to the vascular endothelium (7), and haploinsufficiency of DLL4 results in major defects in vascular systems in mouse (8-11). Blockade of DLL4 inhibits tumor growth in model systems (12-14).

Background References:

(1) Wilson, A. and Radtke, F. (2006) *FEBS Lett.* 580, 2860-2868.

(2) Hansson, E.M. et al. (2004) *Semin. Cancer Biol.* 14, 320-328.

(3) Chiba, S. (2006) *Stem Cells* 24, 2437-2447.

(4) Bland, C.E. et al. (2003) *J. Biol. Chem.* 278, 13607-13610.

(5) Six, E. et al. (2003) *Proc. Natl. Acad. Sci. USA* 100, 7638-7643.

(6) LaVoie, M.J. and Selkoe, D.J. (2003) *J. Biol. Chem.* 278, 34427-34437.

(7) Shutter, J.R. et al. (2000) *Genes Dev* 14, 1313-8.

(8) Gale, N.W. et al. (2004) *Proc Natl Acad Sci U S A* 101, 15949-54.

(9) Krebs, L.T. et al. (2004) *Genes Dev* 18, 2469-73.

(10) Duarte, A. et al. (2004) *Genes Dev* 18, 2474-8.

(11) Hellström, M. et al. (2007) *Nature* 445, 776-80.

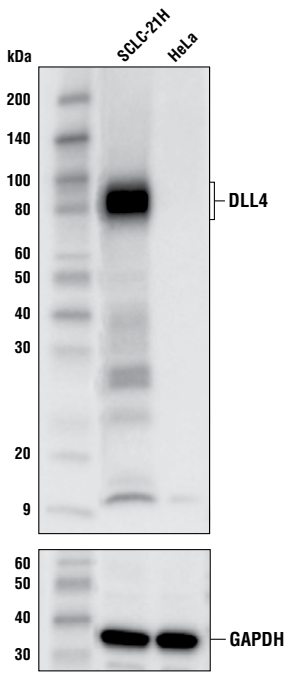
(12) Noguera-Troise, I. et al. (2006) *Nature* 444, 1032-7.

(13) Lobov, I.B. et al. (2007) *Proc Natl Acad Sci U S A* 104, 3219-24.

(14) Scehnet, J.S. et al. (2007) *Blood* 109, 4753-60.

Specificity/Sensitivity: DLL4 (D7N3H) Rabbit mAb recognizes endogenous levels of total DLL4 protein.

Source/Purification: Monoclonal antibody is produced by immunizing animals with recombinant protein specific to the carboxy terminus of human DLL4 protein.



Western blot analysis of extracts of SCLC-21H and HeLa cells using DLL4 (D7N3H) Rabbit mAb (upper) and #5174 GAPDH (D16H11) XP® Rabbit mAb. As expected, HeLa cells are low or negative.

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.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:200
Immunofluorescence (IF-IC)	1:400
Fixative:	4% Formaldehyde
Permeabilization:	0.3% Triton X-100

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com.

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

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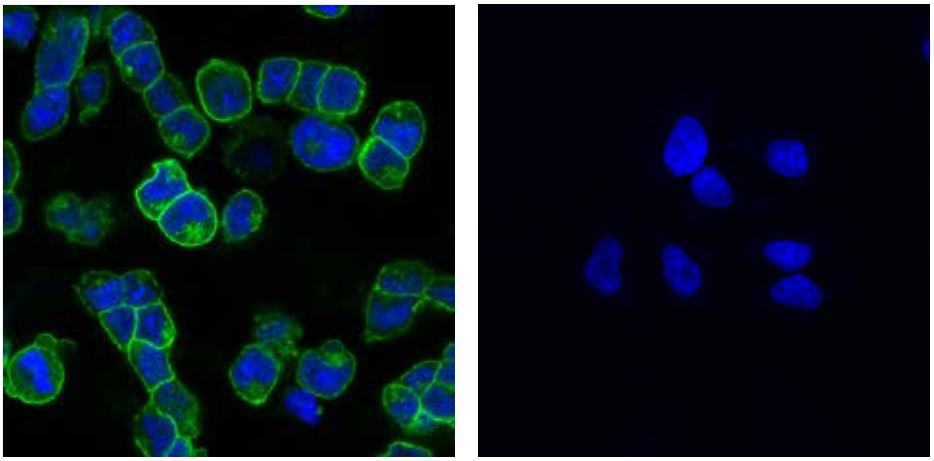
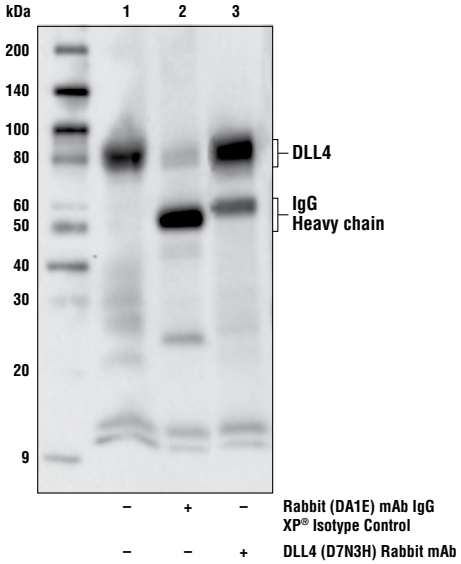
Applications: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide **Species Cross-Reactivity:** **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—Horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.



Confocal immunofluorescent analysis of SCLC-21H cells (left) and HeLa cells (right) using DLL4 (D7N3H) Rabbit mAb (green). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).



Immunoprecipitation of DLL4 protein from SCLC-21H cell extracts. Lane 1 is 10% input, lane 2 is Rabbit (DA1E) mAb IgG XP® Isotype Control #3900, and lane 3 is DLL4 (D7N3H) Rabbit mAb. Western blot analysis was performed using DLL4 (D7N3H) Rabbit mAb.