

#2589 Store at  $-20^{\circ}\text{C}$

# DLL4 Antibody

100  $\mu\text{l}$   
 (10 western blots)

**Orders** ■ 877-616-CELL (2355)  
 orders@cellsignal.com  
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 info@cellsignal.com  
**Web** ■ www.cellsignal.com

rev. 09/15/10

This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP Endogenous	H	75-80 kDa	Rabbit**

**Background:** Notch signaling is activated upon engagement of the Notch receptor with its ligands, the DSL (Delta, Serrate, Jag2) 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  $\gamma$ -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).

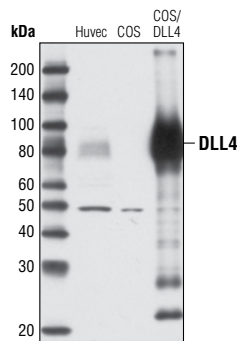
DLL4 expression is highly restricted to the vascular endothelium (7), and haploinsufficiency of DLL4 results in major defects in vascular systems in mouse (8-11). Blockade of DLL4 inhibits tumor growth in model systems (12-14).

**Specificity/Sensitivity:** DLL4 Antibody detects endogenous levels of total DLL4 protein.

**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to a region surrounding residue Leu617 of human DLL4. Antibodies are purified by protein A and peptide affinity chromatography.

**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, 1313-1318.
- (8) Gale, N.W. et al. (2004) *Proc. Natl. Acad. Sci. USA* 101, 15949-15954.
- (9) Krebs, L.T. et al. (2004) *Genes Dev.* 18, 2469-2473.
- (10) Duarte, A. et al. (2004) *Genes Dev.* 18, 2474-2478.
- (11) Hellström, M. et al. (2007) *Nature* 445, 776-780.
- (12) Noguera-Troise, I. et al. (2006) *Nature* 444, 1032-1037.
- (13) Lobov, I.B. et al. (2007) *Proc. Natl. Acad. Sci. USA* 104, 3219-3224.
- (14) Scehnet, J.S. et al. (2007) *Blood* 109, 4753-4760.



Western blot analysis of extracts from HUVEC and COS cells, untransfected or transiently transfected with a construct expressing human DLL4, using DLL4 Antibody.

**Entrez-Gene ID** #54567  
**Swiss-Prot Acc.** #Q9NR61

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100  $\mu\text{g/ml}$  BSA and 50% glycerol. Store at  $-20^{\circ}\text{C}$ . Do not aliquot the antibody.

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

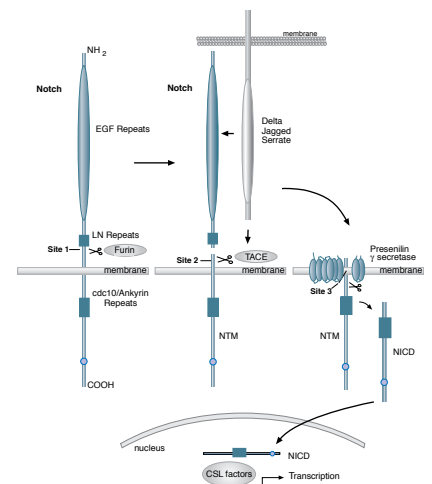
**\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.**

**Recommended Antibody Dilutions:**

Western blotting	1:1000
Immunoprecipitation	1:50

For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.



**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.**

**Applications Key:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide  
**Species Cross-Reactivity Key:** 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.