

Store at
-20C
#96406**DLL4 (D7N3H) Rabbit mAb**

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, IF-IC	H	Endogenous	75-80	Rabbit IgG	#Q9NR61	54567

Product Usage Information**Application**

Western Blotting
Immunoprecipitation
Immunofluorescence (Immunocytochemistry)

Dilution

1:1000
1:200
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.

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.

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

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3. Chiba, S. (2006) *Stem Cells* 24, 2437-2447.
4. Bland, C.E. et al. (2003) *J. Biol. Chem.* 278, 13607-13610.
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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.
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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. Scheinet, J.S. et al. (2007) *Blood* 109, 4753-60.

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

Cross-Reactivity Key

H: Human

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