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Store at -20C
#2155

Jagged1 (1C4) Rabbit mAb

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

Applications: W	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 180	Source/Isotype: Rabbit IgG	UniProt ID: #P78504	Entrez-Gene Id: 182
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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, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Jagged1 (1C4) Rabbit mAb detects endogenous level of total Jagged1 protein. It does not cross-react with Jagged2.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly867 (extracellular region) of human Jagged1.

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).

Mutation in Jagged1 is associated with Alagille syndrome, an autosomal dominant disorder characterized by abnormal development of liver, heart, skeleton, eye, and face (7, 8) and Tetralogy of Fallot (ToF), a common form of complex congenital heart disease (9). Jagged1 expression is associated with prostate cancer metastasis and recurrence (10).

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. Li, L. et al. (1997) *Nat. Genet.* 16, 243-251.
8. Röpke, A. et al. (2003) *Hum. Mutat.* 21, 100.
9. Eldadah, Z.A. et al. (2001) *Hum. Mol. Genet.* 10, 163-169.
10. Santagata, S. et al. (2004) *Cancer Res.* 64, 6854-6857.

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 nonfat dry milk, 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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