



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

Store at -20C
#2423

Notch4 (L5C5) Mouse mAb

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

Applications: W, IP	Reactivity: H	Sensitivity: Transfected Only	MW (kDa): 80 cleaved. 230 full-length.	Source/Isotype: Mouse IgG1	UniProt ID: #Q99466	Entrez-Gene Id: 4855
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Product Usage Information

Application

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

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

Notch4 (L5C5) Mouse mAb detects levels of the transfected intracellular region of human Notch4 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a recombinant protein consisting of the Ankyrin repeat domain of human Notch4.

Background

Notch proteins (Notch1-4) are a family of transmembrane receptors that play important roles in development and the determination of cell fate (1). Mature Notch receptors are processed and assembled as heterodimeric proteins, with each dimer composed of a large extracellular ligand-binding domain, a single-pass transmembrane domain, and a smaller cytoplasmic subunit (Notch intracellular domain, NICD) (2). Binding of Notch receptors to ligands of the Delta-Serrate-Lag2 (DSL) family triggers heterodimer dissociation, exposing the receptors to proteolytic cleavages; these result in release of the NICD, which translocates to the nucleus and activates transcription of downstream target genes (3,4).

Notch4 is primarily expressed in endothelial cells and is processed similarly to Notch1 (5-7). The mouse Notch4 gene (also known as Int-3) is a frequent target in Mouse Mammary Tumour Virus (MMTV)-induced mammary tumors (6,8). The intracellular domain of Notch4 binds to Smad3 and inhibits TGF-β signaling (9).

Background References

1. Artavanis-Tsakonas, S. et al. (1999) *Science* 284, 770-6.
2. Chan, Y.M. and Jan, Y.N. (1998) *Cell* 94, 423-6.
3. Schroeter, E.H. et al. (1998) *Nature* 393, 382-6.
4. Rand, M.D. et al. (2000) *Mol Cell Biol* 20, 1825-35.
5. Uyttendaele, H. et al. (1996) *Development* 122, 2251-2259.
6. Shirayoshi, Y. et al. (1997) *Genes Cells* 2, 213-224.
7. Baron, M. (2003) *Semin. Cell Dev. Biol.* 14, 113-119.
8. Gallahan, D. and Callahan, R. (1997) *Oncogene* 14, 1883-1890.
9. Sun, Y. et al. (2005) *Oncogene* 24, 5365-5374.

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 **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human

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