

#2423 Store at -20°C

Notch4 (L5C5) Mouse mAb



100 µl
 (10 western blots)

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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.

Entrez-Gene ID #4855
Swiss-Prot Acc. #Q99466

Applications W, IP Transfected	Species Cross-Reactivity* H	Molecular Wt. 80 kDa cleaved 230 kDa full-length	Isotype Mouse IgG1**
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Background: Notch1 is a transmembrane protein functioning in development and the determination of cell fate (1). During maturation, the notch molecule is cleaved by a furin-like convertase at its extracellular domain (2). Upon binding to a ligand such as Delta1, or upon extracellular calcium depletion, the carboxy-terminal notch1 fragment is released and further cleaved between Gly1743 and Val1744 (3,4). The resulting activated cytosolic fragment translocates to the nucleus where it activates transcription.

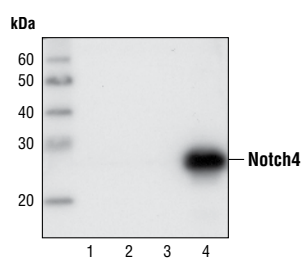
Notch4 is primarily expressed in endothelial cells and is processed similarly to Notch1 (5-7). The mouse Notch4 gene (also known as Int-3) is a frequent target in Mouse Mammary Tumour Virus (MMTV)-induced mammary tumors (6,8). The intracellular domain of Notch4 binds to Smad3 and inhibits TGF-β signaling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

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

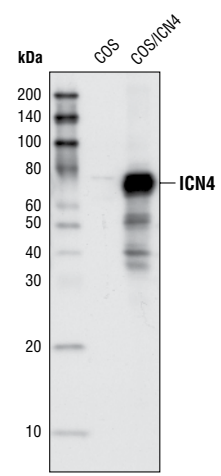
Source/Purification: Monoclonal antibody is produced by immunizing animals with a recombinant protein consisting of the Ankyrin repeat domain of human Notch4.

Background 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.



Western blot analysis of the recombinant human ankyrin repeat domains of Notch1, 2, 3 and 4 (HANK1-4, lanes 1-4, respectively), using 5 ng of protein per lane and Notch4 (L5C5) Mouse mAb.



Western blot analysis of total cell lysate of COS cells either untransfected or transiently transfected with a construct expressing the intracellular domain of human Notch4 (ICN4), using Notch4 (L5C5) Mouse mAb.

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-mouse 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.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

IMPORTANT: For western blots, incubate membrane with diluted 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 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.