

# Notch1 (D1E11) XP® Rabbit 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.

| Applications           | Species Cross-Reactivity* | Molecular Wt. | Isotype      |
|------------------------|---------------------------|---------------|--------------|
| W, IHC-P<br>Endogenous | H, M, R                   | 120, 300 kDa  | Rabbit IgG** |

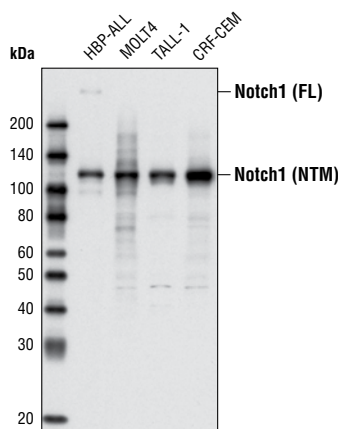
**Background:** Notch1 is a transmembrane protein functioning in development and the determination of cell fate (1). During maturation, the notch molecule is cleaved by a furin-like convertase at its extracellular domain (2). Upon binding to a ligand such as Delta1, or upon extracellular calcium depletion, 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.

**Specificity/Sensitivity:** Notch1 (D1E11) XP® Rabbit mAb detects endogenous levels of total Notch1 protein. It recognizes both the full-length (~300 kDa) and the cleaved transmembrane/intracellular region NTM (~120 kDa).

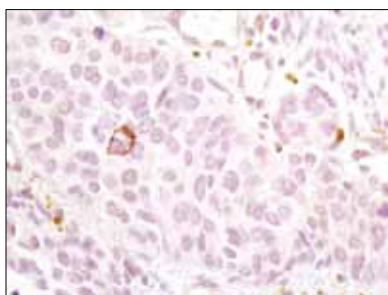
**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro2438 of human Notch1.

**Background References:**

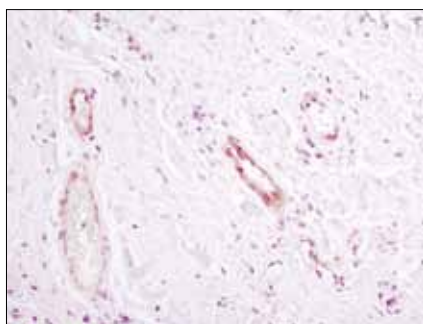
- (1) Artavanis-Tsakonas, S. et al. (1999) *Science* 284, 770–6.
- (2) Chan, Y.M. and Jan, Y.N. (1998) *Cell* 94, 423–6.
- (3) Schroeter, E.H. et al. (1998) *Nature* 393, 382–6.
- (4) Rand, M.D. et al. (2000) *Mol Cell Biol* 20, 1825–35.



Western blot analysis of extracts from various cell lines using Notch1 (D1E11) XP® Rabbit mAb. The full-length (FL) Notch protein and the cleaved transmembrane/intracellular region (NTM) are indicated.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma using Notch1 (D1E11) XP® Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded human inflammatory granulation tissue using Notch1 (D1E11) XP® Rabbit mAb.

Entrez-Gene ID #4851  
 Swiss-Prot Acc. #P46531

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

**Recommended Antibody Dilutions:**

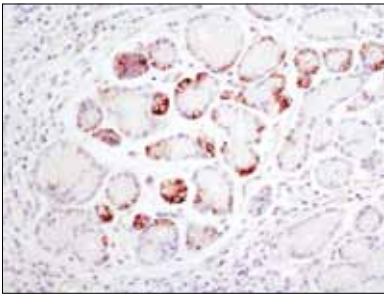
Western blotting 1:1000  
 Immunohistochemistry (Paraffin) 1:400†  
 Unmasking buffer: Citrate  
 Antibody diluent: SignalStain® Antibody Diluent #8112  
 Detection reagent: SignalStain® Boost (HRP, Rabbit) #8114  
 †Optimal IHC dilutions determined using SignalStain® Boost IHC Detection Reagent.

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

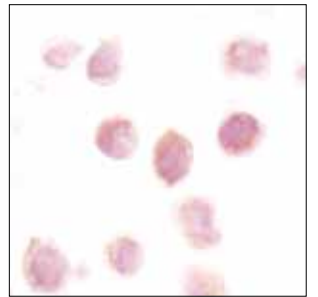
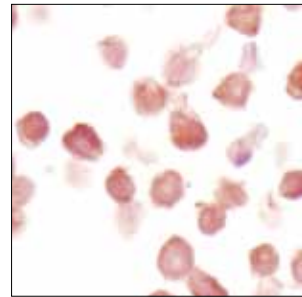
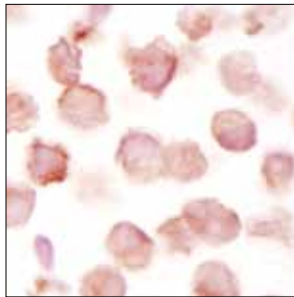
Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.

**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 All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.



*Immunohistochemical analysis of paraffin-embedded human colon using Notch1 (D1E11) XP<sup>®</sup> Rabbit mAb.*



*Immunohistochemical analysis of paraffin-embedded A2780 (left), Jurkat (center) and RL (right) cell pellets using Notch1 (D1E11) XP<sup>®</sup> Rabbit mAb. Both A2780 and Jurkat express Notch1, but only Jurkat cells have cleaved Notch1, while RL cells express very low or no Notch1.*