Revision 3

#3268 Store at -20C

Notch1 (C44H11) Rabbit mAb

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB	H	Endogenous	120, 300	Rabbit IgG	#P46531	4851

Product Usage Information

Application	Dilution
Western Blotting	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

Notch1 (C44H11) Rabbit mAb detects intracellular epitopes between 2400 and 2500 amino acids of human Notch1. It recognizes both the full-length (~300 KDa) and the NTM region (~120 KDa), which consists of a short extracellular juxtamembrane peptide, a transmembrane sequence and the intracellular domain (NICD). The antibody cannot detect the extracellular (ligand-binding) domain of Notch1 following cleavage at the S2 site by ADAM-type metalloproteases.

Species predicted to react based on 100% sequence homology:

Mouse, Rat

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro2439 of human Notch1.

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 comprised 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).

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.

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

WB: Western Blotting

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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 **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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