

Product Data Sheet

Purified anti-Notch 1

Catalog # / Size: 629101 / 25 µg
629102 / 100 µg

Clone: mN1A

Isotype: Mouse IgG1, κ

Immunogen: Notch1 GST fusion protein

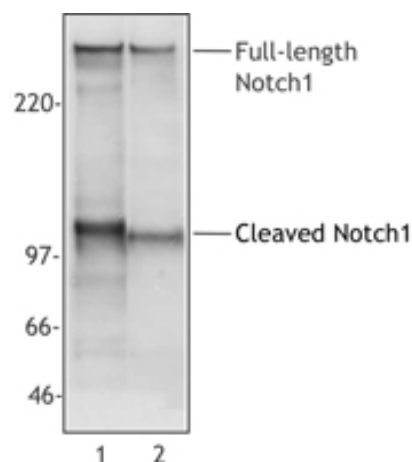
Reactivity: Mouse, Human

Preparation: The antibody was purified by affinity chromatography.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Concentration: 0.5 mg/ml

Storage: The antibody solution should be stored undiluted at 4°C.



Cell extracts from Jurkat (Lane 1) or mouse thymocytes (Lane 2) were Western Blot analyzed with monoclonal anti-NOTCH1 antibody. The mN1A antibody recognizes both mouse and human 270 kD full-length NOTCH1 and 110-120 kD cleaved NOTCH 1 (NICD).

Applications:

Applications: WB - *Quality tested*
IHC - *Reported in the literature*

Recommended Usage: Each lot of this antibody is quality control tested by Western blotting. For Western blotting, the suggested use of this reagent is 1.0 µg per ml for each mini-gel. It is recommended that the reagent be titrated for optimal performance for each application.

Application Notes: Additional reported applications of this antibody (for the relevant formats) include: Western blotting^{1,2,3}, and immunohistochemistry^{4,5}.

Application References:

1. Huppert SS, *et al.* 2000. *Nature* 405:966. (WB)
2. Ray WJ, *et al.* 1999. *Proc. Natl. Acad. Sci. USA* 96:3263. (WB)
3. DeStrooper B, *et al.* 1999. *Nature* 398:518. (WB)
4. Sun H, *et al.* 2007. *J. Cell Biol.* 177:647. (IHC) PubMed
5. Jundt F, *et al.* 2008. *Leukemia*. 22:1587. (IHC) PubMed

Description: Notch1, also known as neurogenic locus notch homolog protein 1, is a large >270 kD protein that functions as a receptor for the membrane ligands Jagged1, Jagged2 and Delta1 to regulate cell fate decisions. Upon ligand activation, the transmembrane Notch1 receptor is cleaved by TNF-alpha converting enzyme (TACE) to produce a membrane-associated intermediate fragment (NEXT). This fragment is further cleaved by presenilin-dependent gamma secretase to release a notch-derived peptide containing the intracellular fragment from the membrane. The released Notch intracellular fragment (NICD) translocates to the nucleus and forms a transcriptional complex with the RBP-J κ transcriptional activator complex to alter differentiation, proliferation, and apoptotic programs. Notch 1 is highly expressed in the brain, lung, and thymus (CD4⁺CD8⁻ cells and CD4⁺CD8⁺ cells) with lower levels of expression observed in the spleen, bone marrow, spinal cord, eyes, mammary gland, liver, intestine, kidney and heart. The transmembrane Notch protein is a heterodimeric protein consisting of a C-terminal fragment and N-terminal fragment (probably linked by disulphide bonds) containing 5 ankyrin repeats, 36 EGF repeats, and 3 Notch/Lin repeats. Notch1 can be modified by phosphorylation. The mN1A monoclonal antibody reacts with the intracellular domain of mouse and human Notch1 and has been reported to have highest affinity for activated intracellular Notch1 and lower affinity for full-length unprocessed/heterodimeric Notch1 forms. This antibody does not recognize rat Notch1 or cross-react with Notch2, 3, or 4.

Antigen References:

1. Huppert SS, *et al.* 2000. *Nature* 405:966.
2. Kopan R, *et al.* 1993. *J. Cell Biol.* 121:631.
3. Saxena MT, *et al.* 2001. *J. Biol. Chem.* 276:40268.
4. Mizutani T, *et al.* 2001. *Proc. Natl. Acad. Sci. USA* 98:9026.

Related Products:

Product	Clone	Application
Purified Mouse IgG1, κ Isotype Ctrl	MOPC-21	FC, ICFC, ICC, IF, IHC, IP, WB
HRP Goat anti-mouse IgG (minimal x-reactivity)	Poly4053	ELISA, IHC, WB



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