abcam

ab80045

FITC Anti-Notch1 antibody [mN1A]

Anti-Notch1 antibody [mN1A] conjugated to FITC - suitable for intracellular flow cytometry, and reacts with mouse samples. Clone [mN1A] is a mouse monoclonal antibody cited in 9 publications.

Key facts

Isotype	IgG1
Host species	Mouse
Conjugation	FITC
Excitation/Emission	Ex: 495nm, Em: 519nm
Storage buffer	pH: 7.4 Preservative: 0.09% Sodium azide Constituents: PBS, 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Synthetic Peptide within Mouse Notch1. The exact immunogen used to generate this antibody is proprietary information. Database link Q01705
Clone number	mN1A
Purification technique	Affinity purification Protein G
Concentration	0.1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt (Intra)

Tested

Species	Mouse

Dilution info	1/10
Notes	Use 10µl for 10^6 cells. Membrane permeabilisation is required. ab91356 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Target data

See full target information Notch1

Function	Functions as a receptor for membrane-bound ligands Jagged-1 (JAG1), Jagged-2 (JAG2) and Delta-1 (DLL1) to regulate cell-fate determination. Upon ligand activation through the released notch intracellular domain (NICD) it forms a transcriptional activator complex with RBPJ/RBPSUH and activates genes of the enhancer of split locus. Affects the implementation of differentiation, proliferation and apoptotic programs. Involved in angiogenesis; negatively regulates endothelial cell proliferation and migration and angiogenic sprouting. Involved in the maturation of both CD4(+) and CD8(+) cells in the thymus. Important for follicular differentiation and possibly cell fate selection within the follicle. During cerebellar development, functions as a receptor for neuronal DNER and is involved in the differentiation of Bergmann glia. Represses neuronal and myogenic differentiation. May play an essential role in postimplantation development, probably in some aspect of cell specification and/or differentiation. May be involved in mesoderm development, somite formation and neurogenesis. May enhance HIF1A function by sequestering HIF1AN away from HIF1A. Required for the THBS4 function in regulating protective astrogenesis from the subventricular zone (SVZ) niche after injury. Involved in determination of left/right symmetry by modulating the balance between motile and immotile (sensory) cilia at the left-right organiser (LRO).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Notch1 also known as Notch-1 is a transmembrane receptor involved in cell fate decisions. It belongs to the Notch protein family and has a molecular weight of around 270 kDa. Notch1 is expressed widely particularly in tissues such as blood cells and neuronal tissue. The receptor consists of extracellular EGF-like repeats a transmembrane domain and an intracellular domain that translocates to the

	nucleus upon activation. Notch1 plays a critical role in intercellular communication through ligand engagement which then triggers a series of proteolytic cleavages that release the Notch intracellular domain (NICD) for nuclear translocation.
Biological function summary	Notch1 is essential in various cellular processes including differentiation proliferation and apoptosis. It functions as part of a complex signaling pathway that regulates these processes. Notch1 interacts with other elements like Jagged and Delta/Serrate/LAG-2 (DSL) family ligands to control gene expression patterns that determine cell lineage outcomes. This interaction affects the development of many systems such as the immune and nervous systems. Consequently Notch1 significantly influences the formation of organs and the maintenance of stem cell populations.
Pathways	Notch1 plays a significant role in both the Notch signaling and the Wnt signaling pathways. In the Notch signaling pathway Notch1 upon ligand binding partners with CSL (CBF1/RBP-Jκ in mammals) and Mastermind-like proteins for transcriptional regulation. This pathway interlinks with the Wnt pathway that involves proteins like β-catenin affecting the regulation of gene transcription. The interplay between Notch1 and these pathways is fundamental in determining outcomes in cell proliferation and differentiation emphasizing the interconnected nature of signaling networks.
Associated diseases and disorders	Notch1 is associated with T-cell acute lymphoblastic leukemia and breast cancer. Altered Notch1 signaling often through gain-of-function mutations can drive oncogenesis by disrupting normal cell differentiation and promoting uncontrolled proliferation. In T-cell acute lymphoblastic leukemia aberrant activation of Notch1 leads to increased expression of target genes working closely with related proteins like c-Myc. In breast cancer dysregulation of Notch1 signaling may facilitate tumor growth and metastasis indicating its role as a therapeutic target.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

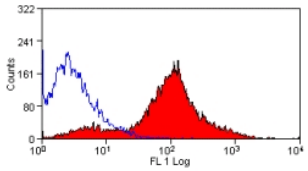
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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1 product image



Flow Cytometry (Intracellular) - FITC Anti-Notch1 antibody [mN1A] (ab80045)

Notch1 Flow Cytometry (Intracellular) staining using mouse Anti-Notch1 antibody

ab80045 staining Notch1 in Mouse thymocytes by Intracellular flow cytometric analysis.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.