abcam

Product datasheet

PE Anti-Notch1 antibody [mN1A] ab93569

1 Image

Overview

Product name	PE Anti-Notch1 antibody [mN1A]
Description	PE Mouse monoclonal [mN1A] to Notch1
Host species	Mouse
Conjugation	PE. Ex: 488nm, Em: 575nm
Specificity	ab93569 reacts with the intracellular domain of Notch1, but not with Notch2, 3, or 4. The antibody has a low affinity for the full length (unprocessed or heterodimeric cell surface) forms of Notch1.
Tested applications	**Suitable for:** Flow Cyt (Intra)
Species reactivity	**Reacts with:** Mouse
Immunogen	Recombinant fragment corresponding to Mouse Notch1. Database link: **Q01705**
Positive control	Flow Cyt (intra): C57Bl/6 Mouse thymocytes
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C.
Storage buffer	pH: 7.20 Preservative: 0.09% Sodium azide Constituents: 0.87% Sodium chloride, PBS
Purity	Protein G purified
Clonality	Monoclonal
Clone number	mN1A
Isotype	IgG1

Light chain type kappa

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab93569 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		

Application notes Flow Cyt: Use 0.125 - 0.25 µg for 10^{5-8} cells in a final volume of 100 µl.

Not yet tested in other applications.
Optimal dilutions/concentrations should be determined by the end user.

Target

Function Functions as a receptor for membrane-bound ligands Jagged1, Jagged2 and Delta1 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. May be important for normal lymphocyte function. In altered form, may contribute to transformation or progression in some T-cell neoplasms. Involved in the maturation of both CD4+ and CD8+ cells in the thymus. May be important for follicular differentiation and possibly cell fate selection within the follicle. During cerebellar development, may function as a receptor for neuronal DNER and may be involved in the differentiation of Bergmann glia.

Tissue specificity In fetal tissues most abundant in spleen, brain stem and lung. Also present in most adult tissues where it is found mainly in lymphoid tissues.

Involvement in disease Defects in NOTCH1 are a cause of bicuspid aortic valve (BAV) [MIM:109730]. A common defect in the aortic valve in which two rather than three leaflets are present. It is often associated with aortic valve calcification and insufficiency. In extreme cases, the blood flow may be so restricted that the left ventricle fails to grow, resulting in hypoplastic left heart syndrome.

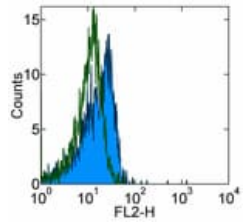
Sequence similarities Belongs to the NOTCH family.
Contains 5 ANK repeats.
Contains 36 EGF-like domains.
Contains 3 LNR (Lin/Notch) repeats.

Post-translational modifications Synthesized in the endoplasmic reticulum as an inactive form which is proteolytically cleaved by a furin-like convertase in the trans-Golgi network before it reaches the plasma membrane to yield an active, ligand-accessible form. Cleavage results in a C-terminal fragment N(TM) and a N-terminal fragment N(EC). Following ligand binding, it is cleaved by TNF-alpha converting enzyme (TACE) to yield a membrane-associated intermediate fragment called notch extracellular truncation (NEXT). This fragment is then cleaved by presenilin dependent gamma-secretase to release a notch-derived peptide containing the intracellular domain (NICD) from the membrane.
Phosphorylated.
O-glycosylated on the EGF-like domains. Contains both O-linked fucose and O-linked glucose.
Ubiquitinated; undergoes 'Lys-29'-linked polyubiquitination catalyzed by ITCH.

Cellular localization Cell membrane and Nucleus. Following proteolytical processing NICD is translocated to the

nucleus.

Images



Flow Cytometry (Intracellular) - PE Anti-Notch1 antibody [mN1A] (ab93569)

Staining of C57Bl/6 thymocytes with 0.06 µg of PE Mouse IgG1, kappa Isotype Control (open histogram), or 0.125 µg of ab93569 (colored histogram). CD4-CD8- double-negative thymocytes were used for analysis.

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