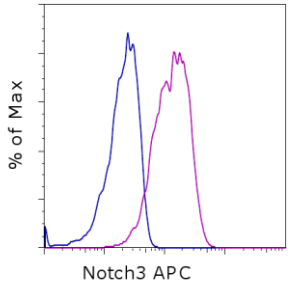
Anti-Human Notch3 APC

Catalog Number: 17-5787
RUO: For Research Use Only. Not for use in diagnostic procedures.



Staining of Jurkat cells with Mouse IgG1 kappa Isotype Control APC (cat. 17-4714) (blue histogram) or Anti-Human Notch3 APC (purple histogram). Total viable cells were used for analysis.

Product Information

Contents: Anti-Human Notch3 APC
REF **Catalog Number:** 17-5787
Clone: MHN3-21
Concentration: 5 uL (0.25 ug)/test
Host/Isotype: Mouse IgG1, kappa

Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer
Temperature Limitation: Store at 2-8°C. Do not freeze. Light-sensitive material.
LOT **Batch Code:** Refer to vial
Use By: Refer to vial

Description

This MNH3-21 monoclonal antibody reacts with the extracellular domain of human Notch3, one of four members of the Notch family of receptors. Notch receptors are 300-kDa single-pass transmembrane proteins. While the extracellular domain contains numerous epidermal growth factor-like repeats for ligand binding, the intracellular domain is involved in cell signaling. Upon binding its membrane-bound ligand (either Delta or Jagged), the Notch receptor undergoes proteolytic cleavage, first by ADAM-family metalloproteases and then by γ-secretase. The second cleavage event releases the Notch intracellular domain (NICD), which subsequently translocates into the nucleus, heterodimerizes with the DNA-binding protein RBP-J, recruits co-activator molecules, and ultimately activates transcription.

Notch3 expression has been demonstrated on some thymocyte subsets, including CD4-CD8- and CD8SP cells. This Notch receptor is also expressed on vascular smooth muscle and cells of the central nervous system. In addition to its role in stem cell hematopoiesis, Notch3 plays a pivotal role in T cell lineage commitment and thymocyte development. Moreover, Notch3 is overexpressed in human T-cell acute lymphoblastic leukemias (T-ALL) and other cancers. Finally, mutation of Notch3 has been linked to cerebral autosomal dominant arteriopathy with subcortical infarcts and leukoencephalopathy (CADASIL), a CNS degenerative disorder.

Applications Reported

This MHN3-21 antibody has been reported for use in flow cytometric analysis.

Applications Tested

This MHN3-21 antibody has been pre-titrated and tested by flow cytometric analysis of Jurkat cells. This can be used at 5 µL (0.25 µg) per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10^5 to 10^8 cells/test.

References

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blood CD34-positive cells devoid of IL-15. J Immunol. 2009 May 15;182(10):6168-78. (**MHN3-21**, FC)

Talora C, Cialfi S, Oliviero C, Palermo R, Pascucci M, Frati L, Vacca A, Gulino A, Screpanti I. Cross talk among Notch3, pre-TCR, and Tal1 in T-cell development and leukemogenesis. Blood. 2006 Apr 15;107(8):3313-20.

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Related Products
17-4714 Mouse IgG1 K Isotype Control APC (P3.6.2.8.1)

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