Anti-NOTCH1 (Neurogenic locus notch homolog protein 1) Polyclonal Antibody

Category: Polyclonal Antibody

Catalog #: AB3H032

Antigen Synonym: TAN1(Translocation-associated notch protein TAN-1)

Species Reactivity: Human

Immunogen/Specificity:
Polyclonal antibody produced in rabbits immunizing with a synthetic peptide corresponding to N-terminal residues of human NOTCH1 (Neurogenic locus notch homolog protein 1)

Description: NOTCH1 (Neurogenic locus notch homolog protein 1) 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 RBP-J kappa and activates genes of the enhancer of split locus. NOTCH1 affects the implementation of differentiation, proliferation and apoptotic programs. NOTCH1 may be important for normal lymphocyte function. In altered form, NOTCH1 may contribute to transformation or progression in some T-cell neoplasms. NOTCH1 is involved in the maturation of both CD4+ and CD8+ cells in the thymus. NOTCH1 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. NOTCH1 is 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. NOTCH1 truncation is associated with T-cell acute lymphoblastic leukemia.

Reference:
Ellisen,L.W., et al, Cell 66 (4), 649-661 (1991)
Gray,G.E., et al, Am. J. Pathol. 154 (3), 785-794 (1999)
Matsuno,K., et al, Nat. Genet. 19 (1), 74-78 (1998)
Wu,L., et al, Nat. Genet. 26 (4), 484-489 (2000)
Wu,L., et al, Mol. Cell. Biol. 22 (21), 7688-7700 (2002)
Vardar,D., et al, Biochemistry 42 (23), 7061-7067 (2003)
Hambleton,S., et al, Structure 12 (12), 2173-2183 (2004)
Ehebauer,M.T., et al, Biochem. J. 392 (PT 1), 13-20 (2005)

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