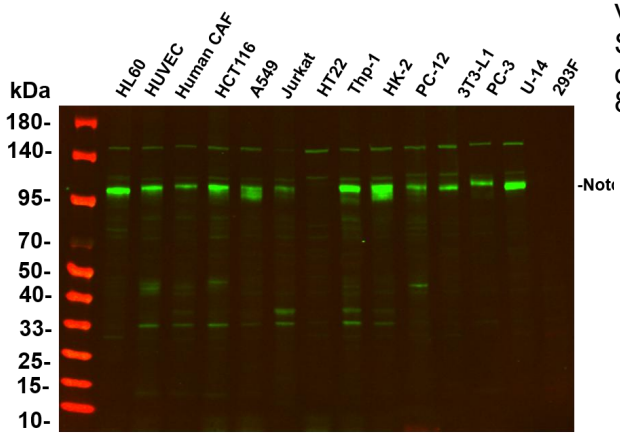
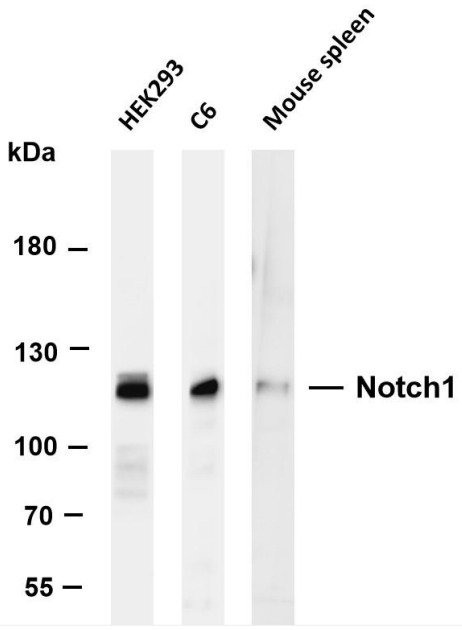
Notch1 Rabbit mAb

Catalog No	YP-rAb-18051
Isotype	IgG
Reactivity	Human,Mouse,Rat
Applications	WB,IHC,IF,ELISA
Gene Name	NOTCH1
Protein Name	Neurogenic locus notch homolog protein 1
Purification Process	Protein A
Specificity	Endogenous
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source	Monoclonal, Rabbit,IgG
Dilution	IHC 1:200-1000; WB 1:1000-5000; IF 1:200-1000; ELISA 1:5000-20000; Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0
Concentration	0.5 mg/ml
Purity	≥90%
Storage Stability	-15° C to -25° C/1 year(Do not lower than -25° C)
Synonyms	NOTCH1 ; TAN1 ; Neurogenic locus notch homolog protein 1 ; Notch 1 ; hN1 ; Translocation-associated notch protein TAN-1
Observed Band	120kD
Calculated Molecular Weight	273kD
Cell Pathway	Membranous
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.
Function	Disease:Defects in NOTCH1 are a cause of aortic valve disease [MIM:109730]. The disorder consists of an early developmental defect in the aortic valve and a later de-repression of calcium deposition that causes progressive aortic valve disease. Calcification of the aortic valve is the third leading cause of heart disease in adults. The incidence increases with age, and it is often associated with a bicuspid aortic valve present in 1-2% of the population.,Disease:NOTCH1 truncation is associated with T-cell acute lymphoblastic leukemia.,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 RBP-J kappa and activates genes of the enhancer of split locus. Affects the implementation of differentiation, proliferation

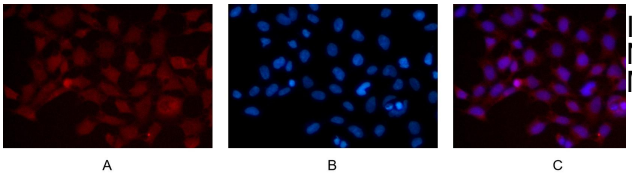
	and apoptotic programs. May be important for normal lymphocyte function. In altered form, may contribute to transformation or progression in some T-cell neoplasms. Involved in the maturation of both CD4+ and CD8+ cells in the thymus. May be important for follicular differentiation and possibly cell fate 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.,PTM:Phosphorylated.,PTM: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.,similarity:Belongs to the NOTCH family.,similarity:Contains 3 LNR (Lin/Notch) repeats.,similarity:Contains 36 EGF-like domains.,similarity:Contains 5 ANK repeats.,subcellular location:Following proteolytical processing NICD is translocated to the nucleus.,subunit:Heterodimer of a C-terminal fragment N(TM) and an N-terminal fragment N(EC) which are probably linked by disulfide bonds. Interacts with DNER, DTX1, DTX2 and RBPSUH. Also interacts with MAML1, MAML2 and MAML3 which act as transcriptional coactivators for NOTCH1.,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.,
Background	notch 1(NOTCH1) Homo sapiens This gene encodes a member of the NOTCH family of proteins. Members of this Type I transmembrane protein family share structural characteristics including an extracellular domain consisting of multiple epidermal growth factor-like (EGF) repeats, and an intracellular domain consisting of multiple different domain types. Notch signaling is an evolutionarily conserved intercellular signaling pathway that regulates interactions between physically adjacent cells through binding of Notch family receptors to their cognate ligands. The encoded preproprotein is proteolytically processed in the trans-Golgi network to generate two polypeptide chains that heterodimerize to form the mature cell-surface receptor. This receptor plays a role in the development of numerous cell and tissue types. Mutations in this gene are associated with aortic valve disease, Adams-Oliver syndrome, T-cell acute lymphoblastic leukemia, chronic lymph
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



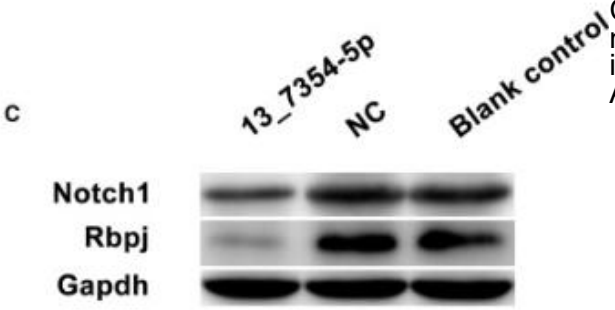
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the primary antibody was used at 4℃, over night with a 1:2500 dilution . The Dylight 800-conjugated Goat anti-Rabbit antibody



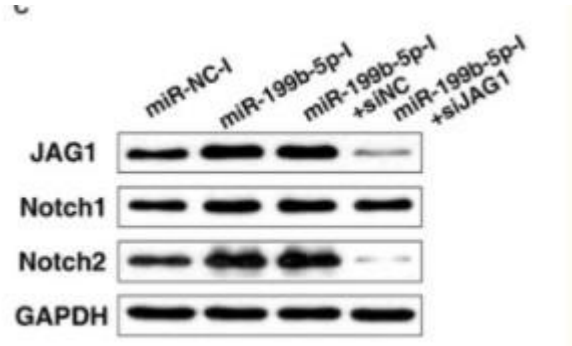
Various whole cell lysates were separated by 6% SDS-PAGE, and the membrane was blotted with anti-Notch1 antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: HEK293 Lane 2: C6 Lane 3: Mouse spleen Predicted band size: 273kDa Observed band size: 120kDa



Immunofluorescence analysis of HEK293. Picture A: Notch1 antibody (red). Picture B: DAPI (blue). Picture C: Merge of A+B



Zhao, Feng, et al. "Novel mouse miRNA Chr13_novelMiR7354-5p improves bone-marrow-derived mesenchymal stem cell differentiation into insulin-producing cells." Molecular Therapy-Nucleic Acids 19 (2020): 1110-1122.



Qu, Xiaochen, et al. "MiR‐199b‐5p inhibits osteogenic differentiation in ligamentum flavum cells by targeting JAG1 and modulating the Notch signalling pathway." Journal of cellular and molecular medicine 21.6 (2017): 1159-1170.