

Notch1 (PT0229R) PT™ Rabbit mAb

CatalogNo: YM8144 **Recombinant** 

Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse, Rat

Applications

- WB, IHC, IF, ELISA

MW

- 273kD (Calculated)
120kD (Observed)

Isotype

- IgG, Kappa

Storage

Storage* -15°C to -25°C/1 year (Do not lower than -25°C)

Formulation PBS, 50% glycerol, 0.05% Proclin 300, 0.05% BSA

Recommended Dilution Ratios

IHC 1:200-1000

WB 1:1000-5000

IF 1:200-1000

ELISA 1:5000-20000

Basic Information

Clonality Monoclonal

Clone Number PT0229R

Immunogen Information

Specificity Endogenous

| Target Information

Gene name NOTCH1

Protein Name Neurogenic locus notch homolog protein 1

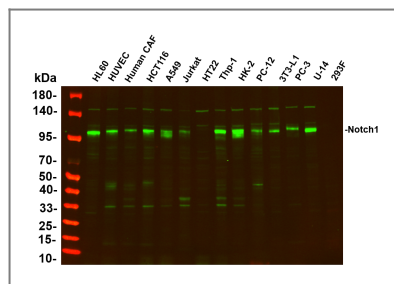
Organism	Gene ID	UniProt ID
Human	4851 ;	P46531 ;
Mouse	18128 ;	Q01705 ;
Rat		Q07008 ;

Cellular Localization Membranous

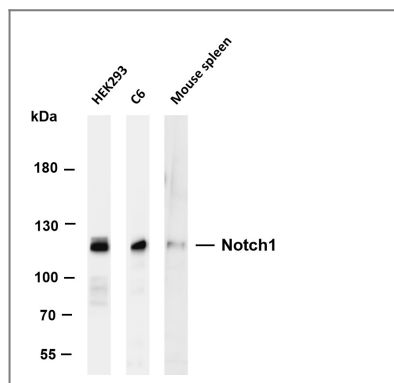
Tissue specificity In fetal tissues most abundant in spleen, brain stem and lung. Also present in most adult tissues where it is found mainly in lymphoid tissues.

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.,

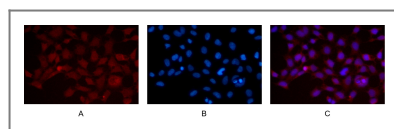
Validation Data



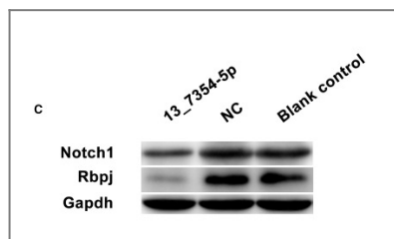
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the primary antibody was used at 4°C, over night with a 1:2500 dilution. The Dylight 800-conjugated Goat anti-Rabbit antibody (Cat:RS23920) was used to detect the antibody. Lane1: HL60 - Human promyelocytic leukemia cell Lane2: HUVEC - Human umbilical vein endothelial cell Lane3: Human CAF - Human cancer-associated fibroblast Lane4: HCT116 - Human colorectal carcinoma Lane5: A549 - Human lung carcinoma Lane6: Jurkat - Human T lymphocyte leukemia Lane7: HT22 - Mouse hippocampal neuronal Lane8: Thp-1 - Human monocytic leukemia Lane9: HK-2 - Human proximal tubular epithelial Lane10: PC-12 - Rat adrenal pheochromocytoma Lane11: 3T3-L1 - Mouse embryonic fibroblast Lane12: PC-3 - Human prostate adenocarcinoma Lane13: U-14 - Mouse cervical carcinoma Lane14: 293F - HEK293 derivative, adapted for suspension culture Predicted band size: 120 273kDa Observed band size: 120kDa



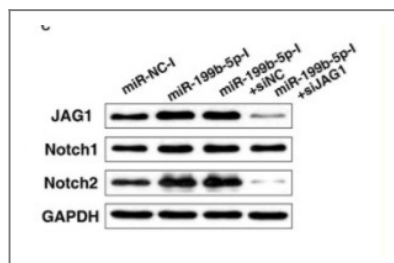
Various whole cell lysates were separated by 6% SDS-PAGE, and the membrane was blotted with anti-Notch1 antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: HEK293 Lane 2: C6 Lane 3: Mouse spleen Predicted band size: 273kDa Observed band size: 120kDa



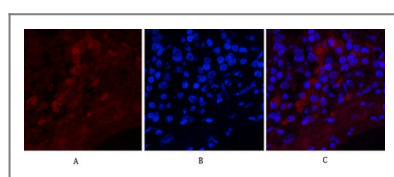
Immunofluorescence analysis of HEK293. Picture A: Notch1 antibody (red). Picture B: DAPI (blue). Picture C: Merge of A+B



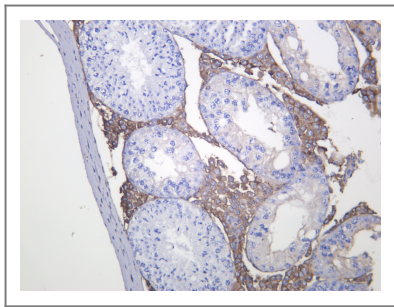
Zhao, Feng, et al. "Novel mouse miRNA Chr13_novelMiR7354-5p improves bone-marrow-derived mesenchymal stem cell differentiation into insulin-producing cells." *Molecular Therapy-Nucleic Acids* 19 (2020): 1110-1122.



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.



Immunofluorescence analysis of Human-lung-cancer tissue. 1, Cleaved-Notch 1 (V1754) Antibody (red) was diluted at 1:200 (4°C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



Mouse testis was stained with anti-Notch1 (PT0229R) Rabbit antibody

| Contact information

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