NOTCH1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	NOTCH1, Polyclonal Antibody
Full Product Name	NOTCH1 (Cleaved-Val1711) rabbit pAb
Product Gene Name	anti-NOTCH1 antibody
Product Synonym Gene Name	TAN1
Product Synonym Names	Neurogenic locus notch homolog protein 1 (Notch 1)(hN1)(Translocation-associated notch protein TAN-1) [Cleaved into: Notch 1 extracellular truncation; Notch 1 intracellular domain (NICD)]
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Purity/Purification	The antibody was affinity-purified from rabbit serum by affinity-chromatography using specific immunogen.
Preparation and Storage	Store at -20 degree C for ~1 year
Molecular Weight	272,505 Da
Chromosome Location	Chromosome: 9; NC_000009.11 (139388896..139440238, complement). Location: 9q34.3
OMIM	109730
3D Structure	ModBase 3D Structure for P46531
Product Categories/Family for anti-NOTCH1 antibody	Primary Antibody
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-NOTCH1 antibody	Western Blot (WB), ELISA (EIA)
Application Notes for anti-NOTCH1 antibody	WB: 1:1000-2000 ELISA: 1:5000-20000
Related Product Information for anti-NOTCH1 antibody	MBS8597405 is an antibody targeting NOTCH1. Also known as NOTCH1 (Cleaved-Val1711) rabbit pAb. Reactive in Human, Mouse, Rat. Host: Rabbit.
Other Notes	Small volumes of anti-NOTCH1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for NOTCH1. It may not necessarily be applicable to this product.

NCBI GI #	148833508
NCBI GeneID	4851
NCBI Accession #	NP_060087.3
UniProt Primary Accession #	P46531

UniProt Secondary Accession #	Q59ED8; Q5SXM3
UniProt Related Accession #	P46531
GenBank Nucleotide #	NM_017617.3
NCBI Official Full Name	neurogenic locus notch homolog protein 1 preproprotein
NCBI Official Synonym Full Names	notch 1
NCBI Official Symbol	NOTCH1
NCBI Official Synonym Symbols	hN1; TAN1
UniProt Protein Name	Neurogenic locus notch homolog protein 1
UniProt Synonym Protein Names	Translocation-associated notch protein TAN-1
Protein Family	Neurogenic locus notch homolog protein
UniProt Gene Name	NOTCH1
UniProt Synonym Gene Names	TAN1; Notch 1; hN1; NICD
UniProt Entry Name	NOTC1_HUMAN
NCBI Protein Information	neurogenic locus notch homolog protein 1; Notch homolog 1, translocation-associated; translocation-associated notch protein TAN-1
NCBI Summary for NOTCH1	This gene encodes a member of the Notch family. Members of this Type 1 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 family members play a role in a variety of developmental processes by controlling cell fate decisions. The Notch signaling network is an evolutionarily conserved intercellular signaling pathway which regulates interactions between physically adjacent cells. In Drosophilia, notch interaction with its cell-bound ligands (delta, serrate) establishes an intercellular signaling pathway that plays a key role in development. Homologues of the notch-ligands have also been identified in human, but precise interactions between these ligands and the human notch homologues remain to be determined. This protein is cleaved in the trans-Golgi network, and presented on the cell surface as a heterodimer. This protein functions as a receptor for membrane bound ligands, and may play multiple roles during development. [provided by RefSeq, Jul 2008]

UniProt Comments for NOTCH1	Notch 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 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. Represses neuronal and myogenic differentiation. May enhance HIF1A function by sequestering HIF1AN away from HIF1A. 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 RBPJ/RBPSUH. Also interacts with MAML1, MAML2 and MAML3 which act as transcriptional coactivators for NOTCH1. The activated membrane-bound form interacts with AAK1 which promotes NOTCH1 stabilization. Forms a trimeric complex with FBXW7 and SGK1. Interacts with HIF1AN. HIF1AN negatively regulates the function of notch intracellular domain (NICD), accelerating myogenic differentiation. 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. Belongs to the NOTCH family. Protein type: Receptor, misc.; Membrane protein, integral; Oncoprotein; Transcription factor; Motility/polarity/chemotaxis Chromosomal Location of Human Ortholog: 9q34.3 Cellular Component: Golgi membrane; nucleoplasm; endoplasmic reticulum membrane; cell surface; integral to membrane; extracellular region; acrosome; plasma membrane; cytosol; nucleus; receptor complex Molecular Function: enzyme inhibitor activity; protein binding; enzyme binding; chromatin DNA binding; sequence-specific DNA binding; receptor activity; calcium ion binding; transcription factor activity Biological Process: neural tube development; negative regulation of calcium ion-dependent exocytosis; positive regulation of apoptosis; heart development; positive regulation of transcription, DNA-dependent; positive regulation of JAK-STAT cascade; response to lipopolysaccharide; cell differentiation in spinal cord; response to corticosteroid stimulus; negative regulation of BMP signaling pathway; compartment specification; positive regulation of endothelial cell differentiation; negative regulation of ossification; oligodendrocyte differentiation; somatic stem cell division; negative regulation of osteoblast differentiation; positive regulation of astrocyte differentiation; positive regulation of cardiac muscle cell proliferation; positive regulation of keratinocyte differentiation; negative regulation of photoreceptor cell differentiation; positive regulation of neuroblast proliferation; organ regeneration; Notch receptor processing; keratinocyte differentiation; branching morphogenesis of a tube; response to muramyl dipeptide; positive regulation of transcription from RNA polymerase II promoter; determination of left/right symmetry; negative regulation of transcription, DNA-dependent; positive regulation of epithelial cell proliferation; foregut morphogenesis; endoderm development; cell fate specification; cardiac muscle cell proliferation; negative regulation of transcription from RNA polymerase II promoter; embryonic hindlimb morphogenesis; negative regulation of neurogenesis; negative regulation of cell proliferation; astrocyte differentiation; regulation of transcription, DNA-dependent; tissue regeneration; forebrain development; positive regulation of cell proliferation; cardiac muscle morphogensis; heart looping; regulation of somitogenesis; positive regulation of BMP signaling pathway; mesenchymal cell development; transcription initiation from RNA polymerase II promoter; Notch signaling pathway; hair follicle morphogenesis; in utero embryonic development; lumen formation; liver development; humoral immune response; activation of Notch receptor target transcription factor; negative regulation of oligodendrocyte differentiation; inflammatory response to antigenic stimulus; axonogenesis; negative regulation of catalytic activity; epithelial to mesenchymal transition; immune response; gene expression; spermatogenesis; sprouting angiogenesis; negative regulation of myoblast differentiation; auditory receptor cell fate commitment; lung development; positive regulation of cell migration Disease: Adams-oliver Syndrome 5; Aortic Valve Disease 1
Research Articles on NOTCH1	**1.** Hypoxia increased the levels and activity of the ADAM12 metalloprotease in a Notch signaling-dependent manner, leading to increased ectodomain shedding of the epidermal growth factor (EGF) receptor (EGFR) ligand heparin-binding EGF-like growth factor.
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