

ARG65509 anti-Notch 1 antibody [mN1A]

Package: 100 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [mN1A] recognizes Notch 1
Tested Reactivity	Hu, Ms
Species Does Not React With	Rat
Tested Application	FACS, ICC/IF, IHC-Fr, IP, WB
Specificity	The clone mN1A recognizes intracellular domain of Notch 1 protein, mainly its activated form. The unprocessed Notch 1 protein is recognized with lower affinity.
Host	Mouse
Clonality	Monoclonal
Clone	mN1A
Isotype	IgG1
Target Name	Notch 1
Species	Mouse
Immunogen	GST fusion protein containing cdc10-NCR region of mouse Notch1
Conjugation	Un-conjugated
Alternate Names	AOVD1; Translocation-associated notch protein TAN-1; NEXT; hN1; AOS5; NICD; Notch 1; Neurogenic locus notch homolog protein 1; TAN1

Application Instructions

Application table	Application	Dilution
	FACS	1 - 4 µg/ml
	ICC/IF	Assay-dependent
	IHC-Fr	Assay-dependent
	IP	Assay-dependent
	WB	Assay-dependent

Application Note * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

Form	Liquid
Purification	Purified from cell culture supernatant by protein-A affinity chromatography.
Purity	> 95% (by SDS-PAGE)

Buffer	PBS (pH 7.4) and 15 mM Sodium azide
Preservative	15 mM Sodium azide
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

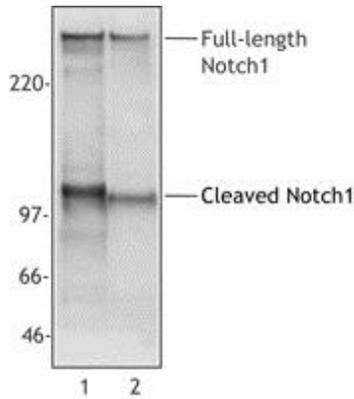
Bioinformation

Database links	GeneID: 18128 Mouse GeneID: 4851 Human Swiss-port # P46531 Human Swiss-port # Q01705 Mouse
Gene Symbol	Notch1
Gene Full Name	notch 1
Background	Notch 1 is a 270-300 kDa transmembrane heterodimeric protein with multiple extracellular growth factor-like repeats, and with an intracellular domain consisting of multiple different domain types. It serves as a receptor for membrane ligands, such as Delta 1, Jagged1 (CD339), and Jagged2, and regulates cell fate decisions. Upon ligand binding the transmembrane form of Notch 1 is repeatedly cleaved to provide approximately 120 kDa Notch intracellular fragment (NICD), which translocates to the nucleus and acts as a part of transcriptional complexes that alter differentiation, proliferation, and apoptosis. The highest level of Notch 1 expression is in brain, lung and thymus.
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 RBPJ/RBPSUH and activates genes of the enhancer of split locus. Affects the implementation of differentiation, proliferation and apoptotic programs. Involved in angiogenesis; negatively regulates endothelial cell proliferation and migration and angiogenic sprouting. Involved in the maturation of both CD4+ and CD8+ cells in the thymus. Important for follicular differentiation and possibly cell fate selection within the follicle. During cerebellar development, functions as a receptor for neuronal DNER and is involved in the differentiation of Bergmann glia. Represses neuronal and myogenic differentiation. May play an essential role in postimplantation development, probably in some aspect of cell specification and/or differentiation. May be involved in mesoderm development, somite formation and neurogenesis. May enhance HIF1A function by sequestering HIF1AN away from HIF1A. Required for the THBS4 function in regulating protective astrogenesis from the subventricular zone (SVZ) niche after injury. Involved in determination of left/right symmetry by modulating the balance between motile and immotile (sensory) cilia at the left-right organiser (LRO). [UniProt]
Research Area	Cell Biology and Cellular Response antibody; Developmental Biology antibody; Gene Regulation antibody; Neuroscience antibody; Signaling Transduction antibody
Calculated Mw	273 kDa
PTM	<p>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 ADAM17 to yield a membrane-associated intermediate fragment called notch extracellular truncation (NEXT). Following endocytosis, this fragment is then cleaved by presenilin dependent gamma-secretase to release a notch-derived peptide containing the intracellular domain (NICD) from the membrane.</p> <p>Phosphorylated.</p> <p>O-glycosylated on the EGF-like domains (PubMed:24226769). Contains both O-linked fucose and O-linked glucose in the EGF-like domains 11, 12 and 13, which are interacting with the residues on DLL4 (By similarity). O-linked glycosylation by GALNT11 is involved in determination of left/right symmetry: glycosylation promotes activation of NOTCH1, possibly by promoting cleavage by ADAM17, modulating the balance between motile and immotile (sensory) cilia at the left-right organiser (LRO)</p>

(PubMed:24226769).

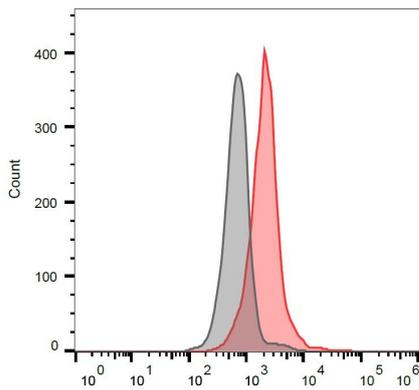
Ubiquitinated; undergoes 'Lys-29'-linked polyubiquitination catalyzed by ITCH. Monoubiquitination at Lys-1759 is required for activation by gamma-secretase cleavage, it promotes interaction with AAK1, which stabilizes it. Deubiquitination by EIF3F is necessary for nuclear import of activated Notch. Hydroxylated at Asn-1955 by HIF1AN. Hydroxylated at Asn-2022 by HIF1AN (By similarity). Hydroxylation reduces affinity for HIF1AN and may thus indirectly modulate negative regulation of NICD (By similarity).

Images



ARG65509 anti-Notch 1 antibody [mN1A] WB image

Western blot: 1) Jurkat or 2) Mouse thymocytes cell lysate were stained with ARG65509 anti-Notch 1 antibody [mN1A]. The clone mN1A recognizes both Mouse and Human full-length Notch1 (270 kD) and cleaved Notch1 (110-120 kD).



ARG65509 anti-Notch 1 antibody [mN1A] FACS image

Flow Cytometry: Separation of stained Jurkat cells (red) from unstained Jurkat cells (black). Cells were stained with ARG65509 anti-Notch 1 antibody [mN1A] at 16 µg/ml dilution, followed by APC-conjugated Goat anti-Mouse antibody.