



Anti-NOTCH1 monoclonal antibody, clone 638536 (DCABY-4054)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Antigen Description

Notch proteins (so named for 'notches' in fly wings) are type I transmembrane glycoproteins involved in specifying cell fates and defining boundaries between different cell types during developmental processes. Notch extracellular domains are large, having 34-36 EGF-like repeats followed by three notch/Lin-12 repeats. Notch proteins interact with transmembrane ligands Jagged, Delta, and Serrate expressed on the surface of a neighboring cell. Upon ligand binding, a series of cleavage events results in the release of the Notch intracellular domain (NICD), which translocates to the nucleus and initiates transcription of Notch-responsive genes. Thus, Notch acts as both a ligand-binding receptor and a nuclear factor that regulates transcription. The four mammalian Notch receptors appear to have distinct functions, since they do not compensate for one another in genetic studies. Mutations in Notch receptors also lead to specific developmental disorders. For example, Notch-3 is predominantly expressed in the developing central nervous system of mice. Mutations in Notch-3 in humans cause an autosomal dominant condition called CADASIL (cerebral autosomal dominant arteriopathy with subcortical infarcts and leukoencephalopathy). This disorder is characterized by recurrent ischemic strokes at an early age without any underlying vascular risk and progressive dementia.

Specificity	Detects human Notch-1.
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Notch-1. aa 19-526 Accession Number P46531
Isotype	IgG1
Source/Host	Mouse
Species Reactivity	Human
Clone	638536

Purification	Protein A or G purified from hybridoma culture supernatant
Conjugate	Unconjugated
Applications	Flow Cytometry, ELISA Capture (Matched Pair)
Format	Liquid
Size	100 µg
Buffer	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.
Preservative	None
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month from date of receipt, 2 to 8 °C, reconstituted. 6 months from date of receipt, -20 to -70 °C, reconstituted.

GENE INFORMATION

Gene Name	NOTCH1 notch 1 [Homo sapiens (human)]
Official Symbol	NOTCH1
Synonyms	NOTCH1; notch 1; hN1; TAN1; neurogenic locus notch homolog protein 1; Notch homolog 1, translocation-associated; translocation-associated notch protein TAN-1;
Entrez Gene ID	4851
Protein Refseq	NP_060087
UniProt ID	P46531
Chromosome Location	9q34.3
Pathway	Activated NOTCH1 Transmits Signal to the Nucleus; Cardiac Progenitor Differentiation; Constitutive Signaling by NOTCH1 HD Domain Mutants; Constitutive Signaling by NOTCH1 HD+PEST Domain Mutants; Constitutive Signaling by NOTCH1 PEST Domain Mutants; Consi
Function	RNA polymerase II transcription factor binding transcription factor activity involved in positive regulation of transcription; calcium ion binding; chromatin DNA binding; core promoter binding; enzyme binding; enzyme inhibitor activity; protein binding; r