

Brilliant Violet 421™ anti-human Notch 1 Antibody

Catalog# / Size	352117 / 25 tests 352118 / 100 tests
Clone	MHN1-519
Regulatory Status	RUO
Other Names	Neurogenic locus notch homolog protein 1 (Notch 1), Translocation-associated notch protein (TAN-1), Motch A, mT14, p300
Isotype	Mouse IgG1, κ
Description	Notch 1, also known as TAN-1, is a transmembrane protein. Its extracellular domain contains 29 epidermal growth factor-like (EGF) repeats and 3 Lin/Notch Glp (LNR) repeats, the intracellular domain contains 5 CDC10/Ankryn repeats (ANK), 1 proline, glutamate, serine, threonine-rich (PEST) motif, and 1 regulation of amino acid metabolism 23 (RAM23) domain. Notch 1 regulates the development, differentiation, and survival of a broad spectrum of cell lineages. It is involved in myogenesis, neurogenesis, gliogenesis, and lymphocyte development, resulting in Notch 1 expression in many organs such as brain, lung, thymus, spleen, bone marrow, spinal cord, eyes, mammary gland, liver, intestine, kidney, and heart. Notch 1 ligands are Jagged 1, Jagged 2, Delta 1, and Delta 4. Upon ligand binding, the intracellular domain of Notch 1 is cleaved and translocates to the cell nucleus where it forms a transcriptional activator complex with RBP-J κ.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Recombinant human Notch1-Fc fusion protein
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 421™ under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration and expiration, please enter the lot number in our Certificate of Analysis online tool.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5 µL per million cells in 100 µL staining volume or 5 µL per 100 µL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application. Brilliant Violet 421™ excites at 405 nm and emits at 421 nm. The standard bandpass filter 450/50 nm is recommended for detection. Brilliant Violet 421™ is a trademark of Sirigen Group Ltd. Learn more about Brilliant Violet™. This product is subject to proprietary rights of Sirigen Inc. and is made and sold under license from Sirigen Inc. The purchase of this product conveys to the buyer a non-transferable right to use the purchased product for research purposes only. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.
Excitation Laser	Violet Laser (405 nm)

Application Notes	Additional reported applications (for the relevant formats) include: blocking Notch 1 mediated binding to DLL4 in human cord blood CD34 ⁺ cells ¹ .
Application References	1. Haraguchi K, <i>et al.</i> 2009. <i>J. Immunol.</i> 182:6168. (Block)
(PubMed link indicates BioLegend citation)	2. Yamanda S, <i>et al.</i> 2009. <i>Blood</i> 113:3631. (FC)
	3. Guy CS. <i>et al.</i> 2013. <i>Nat Immunol.</i> 14:262. PubMed

Antigen Details

Structure	Transmembrane protein. The extracellular domain contains 29 EGF repeats and 3 LNR repeats. The intracellular domain contains 5 CDC10/ANK, 1 PEST motif, and 1 RAM23 domain.
Distribution	Highly expressed in the brain, lung, and thymus. Lower levels of expression in spleen, bone marrow, spinal cord, eyes, mammary gland, liver, intestine, kidney, and heart.
Function	Regulates development, differentiation, and survival of a broad spectrum of cell lineages. Involved in myogenesis, neurogenesis, gliogenesis, and lymphocyte development.
Interaction	RBP-J κ .
Ligand/Receptor	Jagged 1, Jagged 2, Delta 1, Delta 4.
Cell Type	B cells, Neural Stem Cells, Thymocytes
Biology Area	Cell Biology, Immunology, Innate Immunity, Neuroscience, Neuroscience Cell Markers, Stem Cells, Synaptic Biology
Molecular Family	Postsynaptic proteins
Antigen References	1. Vicente R, <i>et al.</i> 2010. <i>Semin. Immunol.</i> 22:270. 2. Zhao WL. 2010. <i>Leukemia</i> 24:13. 3. Sanda T, <i>et al.</i> 2010. <i>Blood</i> 115:1735. 4. Zhou J, <i>et al.</i> 2009. <i>Immunity</i> 31:356.
Gene ID	4851

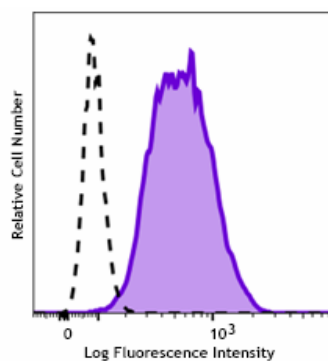
Related Protocols

- [Cell Surface Flow Cytometry Staining Protocol](#)

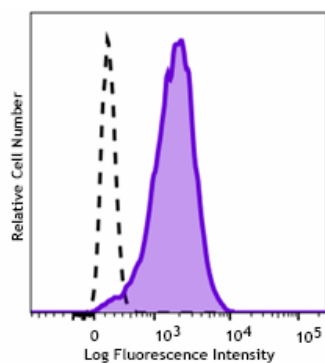
Other Formats

Purified anti-human Notch 1, PE anti-human Notch 1, APC anti-human Notch 1, Brilliant Violet 421™ anti-human Notch 1, Ultra-LEAF™ Purified anti-human Notch 1, TotalSeq™-C0213 anti-human Notch 1, TotalSeq™-A0213 anti-human Notch 1, TotalSeq™-B0213 anti-human Notch 1

Product Data



PHA stimulated (3 days) human peripheral blood lymphocytes were stained with anti-human Notch 1 (clone MHN1-519) Brilliant Violet 421™ (filled histogram) or mouse IgG1, κ Brilliant Violet 421™ isotype control (open histogram).



Human Notch 1 transfected CHO cells were stained with anti-human Notch 1 (clone MHN1-519) Brilliant Violet 421™ (filled histogram) or mouse IgG1, κ Brilliant Violet 421™ isotype control (open histogram).

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