Technical Data Sheet

PE Mouse anti-Human Notch2

Product Information

Material Number:	563519
Alternate Name:	NOTC2; AGS2; hN2; HJCYS; Neurogenic locus notch homolog protein 2
Size:	50 tests
Vol. per Test:	5 µl
Clone:	MHN2-25
Immunogen:	Human Notch2 Recombinant Protein
Isotype:	Mouse (BALB/c) IgG2a, ĸ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The MHN2-25 monoclonal antibody specifically binds to an extracellular domain of human Notch2. Notch2 is a type 1 transmembrane glycoprotein receptor and member of the Notch family that includes Notch1-Notch4. Notch2 is cleaved in the Golgi and presents as a cell surface heterodimeric receptor. The Notch2 receptor can bind to several membrane-bound ligands including Jagged1, Jagged2, Delta1 and Delta4. Upon ligand binding, Notch2 undergoes proteolytic cleavage that results in the release of the Notch intracellular domain, NICD. NICD translocates to the nucleus where it forms a transcriptional activator complex with various transcriptional factors. These multimeric complexes either positively or negatively regulate the expression of multiple genes including those that orchestrate many facets of embryonic development and the subsequent functioning of multiple organ systems such as the hematopoietic, immune, cardiovascular, hepatic and renal systems. Notch2 is expressed by cells of the lung and brain, as well as cells of the B lineage, thymocytes, and T cells. Abnormalities in Notch2 expression may play a role in the development of B cell lymphomas.



Flow cytometric analysis of Notch2 expression on human MCF-7 cells. Human MCF7 cells (ATCC Cat. No. HTB-22™; breast adenocarcinoma cell line) were harvested and stained with either PE Mouse IgG2a, ĸ Isotype Control (Cat. No. 554648; dashed line histogram) or PE Anti-Human Notch2 antibody (Cat. No. 563519; solid line histogram) at matched concentrations. The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable MCF-7 cells. Flow cytometric analysis was performed using a BD FACSCanto™ II Flow Cytometry System.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze. The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Application								
Flow cytometry Routinely Tested								
Suggeste	d Compani	on Product	S					
Catalog Number Name				Size	Clone			
554656	54656 Stain Buffer (FBS)				500 ml	(none)		
554648		PE Mouse IgG2a, κ Isotype Control				0.1 mg	G155-178	
BD Bioscie	ences							
bdbiosciences.	com							DT
United States 877.232.8995	Canada 800.979.9408	Europe 32.53.720.550	Japan 0120.8555.90	Asia Pacific 65.6861.0633	Latin America/Caribbean 55.11.5185.9995			BL
For country co	ntact informatio	on, visit bdbiosci	ences.com/conta	ict				
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Product Notices

- This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1×10^{-6} cells in a 100-µl experimental 1. sample (a test).
- An isotype control should be used at the same concentration as the antibody of interest. 2
- Source of all serum proteins is from USDA inspected abattoirs located in the United States. 3.
- Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before 4. discarding to avoid accumulation of potentially explosive deposits in plumbing.
- 5. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
- 6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

References

Chiba S. Notch signaling in stem cell systems. Stem Cells. 2006; 24(11):2437-2447. (Biology)

Haraguchi K, Suzuki T, Koyama N et al. Notch activation induces the generation of functional NK cells from human cord blood CD34-positive cells devoid of IL-15. J Immunol. 2009; 182(10):6168-6178. (Immunogen: Flow cytometry)

Lammert E, Brown J, Melton DA. Notch gene expression during pancreatic organogenesis. 2000; 94(1-2):199-203. (Biology)

Lee SY, Kumano K, Nakazaki K et al. Gain-of-function mutations and copy number increases of Notch2 in diffuse large B-cell lymphoma. 2009; 100(5):920-926. (Immunogen: ELISA)

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