

Biotin anti-human CD45RA

Catalog # / Size: 304103 / 25 µg
304104 / 100 µg

Clone: HI100

Isotype: Mouse IgG2b, κ

Workshop Number: IV N906

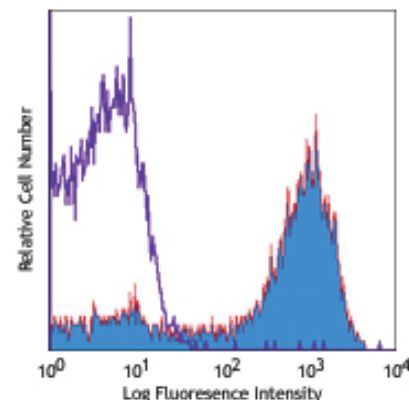
Reactivity: Human, **Cross-Reactivity:** Chimpanzee

Preparation: The antibody was purified by affinity chromatography, and conjugated with biotin under optimal conditions. The solution is free of unconjugated biotin.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Concentration: 0.5 mg/ml

Storage: The antibody solution should be stored undiluted at 4°C. **Do not freeze.**



Human peripheral blood lymphocytes stained with biotinylated HI100, followed by Sav-PE

Applications:

Applications: FC - *Quality tested*

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is ≤ 0.5 µg per 10⁶ cells in 100 µl volume or 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Application Notes: Additional reported applications (for relevant formats of this clone) include: inhibition of CD45 functions², and immunohistochemical staining of frozen tissue sections³ and formalin-fixed paraffin-embedded tissue sections⁴.

Application References:

- Knapp W, *et al.* 1989. Leucocyte Typing IV. Oxford University Press. New York.
- Yamada T, *et al.* 2002. *J. Biol. Chem.* 277:28830. (WB, Block)
- Weninger W, *et al.* 2003 *J. Immunol.* 170:4638. (IHC)
- Imanguli MM, *et al.* 2009. *Blood.* 113:3620 (IHC)
- Roque S, *et al.* 2007. *J. Immunol.* 178:8028. (FC) PubMed
- Smeltz RB. 2007. *J. Immunol.* 178:4786. (FC) PubMed
- Palendira U, *et al.* 2008. *Blood* (FC) PubMed
- Kuttruff S, *et al.* 2009. *Blood* 113:358. (FC) PubMed
- Thakral D, *et al.* 2008. *J. Immunol.* 180:7431. (FC) PubMed
- Alanio C, *et al.* 2010. *Blood* 115:3718. (FC) PubMed
- Iannello A, *et al.* 2010. *J. Immunol.* 184:114. (FC) PubMed
- Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
- Guereau-de-Arellan M, *et al.* 2011. *Brain.* PubMed.

Description: CD45RA is a 205-220 kD single chain type I glycoprotein. It is an exon 4 splice variant of the tyrosine phosphatase CD45. The CD45RA isoform is expressed on resting/naïve T cells, medullary thymocytes, B cells and monocytes. CD45RA enhances both T cell receptor and B cell receptor signaling. CD45 non-covalently associates with lymphocyte phosphatase-associated phosphoprotein (LPAP) on T and B lymphocytes. CD45 has been reported to be associated with several other cell surface antigens including CD1, CD2, CD3, and CD4. CD45 has also been reported to bind galectin-1. CD45 isoform expression can change in response to cytokines.

Antigen References:

- Thomas M. 1989. *Annu. Rev. Immunol.* 7:339.
- Trowbridge I, *et al.* 1994. *Annu. Rev. Immunol.* 12:85.

Related Products:	Product	Clone	Application
	Biotin anti-human CD45	HI30	FC
	PE anti-human CD45RO	UCHL1	FC
	Biotin Mouse IgG2b, κ Isotype Ctrl	MPC-11	FC, ICFC
	APC Streptavidin		FC, ICFC
	APC/Cy7 Streptavidin		FC, ICFC
	FITC Streptavidin		FC, ICFC
	PE Streptavidin		FC, ICFC
	PE/Cy5 Streptavidin		FC, ICFC
	PE/Cy7 Streptavidin		FC, ICFC
	Cell Staining Buffer		FC, ICC, ICFC
	RBC Lysis Buffer (10X)		FC, ICFC
	PE anti-human CD45RB	MEM-55	FC
	Human TruStain FcX™ (Fc Receptor Blocking Solution)		FC, ICC, ICFC

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