

# Product Data Sheet

## Purified anti-human CD45RA

**Catalog # / Size:** 304102 / 100 µg

**Clone:** HI100

**Isotype:** Mouse IgG2b, κ

**Workshop Number:** IV N906

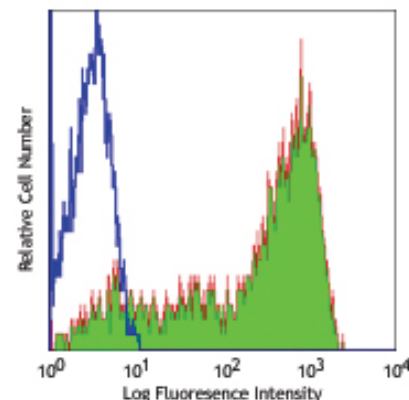
**Reactivity:** Human, **Cross-Reactivity:** Chimpanzee

**Preparation:** The antibody was purified by affinity chromatography.

**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.



Human peripheral blood platelets stained with purified HI100, followed by anti-mouse IgGs FITC

## Applications:

**Applications:** FC - Quality tested  
 IHC - Reported in the literature  
 CyTOF® - Validated

**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 ≤2.0 µg per million cells in 100 µl volume. 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 functions<sup>2</sup>, and immunohistochemical staining of frozen tissue sections<sup>3</sup> and formalin-fixed paraffin-embedded tissue sections<sup>4</sup>.

**Application References:**

1. Knapp W, *et al.* 1989. Leucocyte Typing IV. Oxford University Press. New York.
2. Yamada T, *et al.* 2002. *J. Biol. Chem.* 277:28830. (WB, Block)
3. Weninger W, *et al.* 2003 *J. Immunol.* 170:4638. (IHC)
4. Imanguli MM, *et al.* 2009. *Blood.* 113:3620 (IHC)
5. Roque S, *et al.* 2007. *J. Immunol.* 178:8028. (FC) PubMed
6. Smeltz RB. 2007. *J. Immunol.* 178:4786. (FC) PubMed
7. Palendira U, *et al.* 2008. *Blood* (FC) PubMed
8. Kuttruff S, *et al.* 2009. *Blood* 113:358. (FC) PubMed
10. Thakral D, *et al.* 2008. *J. Immunol.* 180:7431. (FC) PubMed
11. Alanio C, *et al.* 2010. *Blood* 115:3718. (FC) PubMed
12. Iannello A, *et al.* 2010. *J. Immunol.* 184:114. (FC) PubMed
13. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
14. 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:**

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

### Related Products:

Product	Clone	Application
Purified anti-human CD45	HI30	FC, IHC, WB, IF, CyTOF®
Purified anti-human CD45RO	UCHL1	FC, IHC, IP, WB
AKP Goat anti-mouse IgG (minimal x-reactivity)	Poly4053	ELISA, WB, IHC
APC Goat anti-mouse IgG (minimal x-reactivity)	Poly4053	FC
Biotin Goat anti-mouse IgG (minimal x-reactivity)	Poly4053	FC, ELISA, IHC, IF, WB
FITC Goat anti-mouse IgG (minimal x-reactivity)	Poly4053	FC
HRP Goat anti-mouse IgG (minimal x-reactivity)	Poly4053	ELISA, IHC, WB
Purified Mouse IgG2b, κ Isotype Ctrl	MPC-11	FC, ICFC, ICC, IF, IHC, IP, WB
PE Goat anti-mouse IgG (minimal x-reactivity)	Poly4053	FC
Cell Staining Buffer		FC, ICC, ICFC
RBC Lysis Buffer (10X)		FC, ICFC
Purified anti-human CD45RB	MEM-55	FC, IHC, IP, WB



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