

Pacific Blue™ anti-human CD45RA

Catalog # / Size: 304117 / 25 µg
304118 / 100 µg
304123 / 100 tests

Clone: HI100

Isotype: Mouse IgG2b, κ

Workshop Number: IV N906

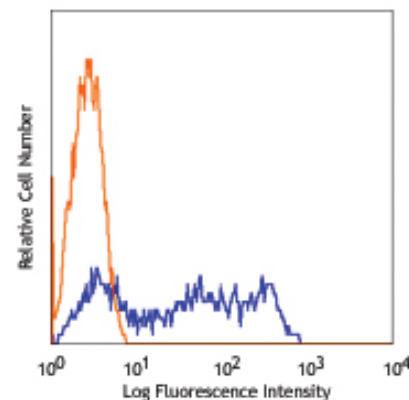
Reactivity: Human, **Cross-Reactivity:** Chimpanzee

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

Formulation: test size: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).
µg sizes: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Concentration: test size: lot-specific; µg sizes: 0.5 mg/ml

Storage: The CD45RA antibody solution should be stored undiluted at 4°C, and protected from prolonged exposure to light. **Do not freeze.**



Human peripheral blood lymphocytes stained with HI100 Pacific Blue™

Applications:

Applications: FC - Quality tested

Recommended Usage: Each lot of this CD45RA antibody is quality control tested by immunofluorescent staining with flow cytometric analysis.

For test size, the suggested use of this reagent for immunofluorescent staining is 20 µl per million cells in 100 µl volume.

For µg sizes, the suggested use of this reagent for immunofluorescent staining is ≤0.5 µg per million cells in 100 µl volume.

It is recommended that the reagent be titrated for optimal performance for each application.

* Pacific Blue™ has a maximum emission of 455 nm when it is excited at 405 nm. Prior to using Pacific Blue™ conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.

** Pacific Blue™ is a registered trademark of Molecular Probes, Inc. Pacific Blue™ dye antibody conjugates are sold under license from Molecular Probes, Inc. for research use only, except for use in combination with microarrays and high content screening, and are covered by pending and issued patents.

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: 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.



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2. Trowbridge I, *et al.* 1994. *Annu. Rev. Immunol.*12:85.

Related Products:	Product	Clone	Application
	Cell Staining Buffer		FC, ICC, ICFC
	RBC Lysis Buffer (10X)		FC, ICFC
	Pacific Blue™ Mouse IgG2b, κ Isotype Ctrl	MPC-11	FC, ICFC
	Human TruStain FcX™ (Fc Receptor Blocking Solution)		FC, ICC, ICFC



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