SONY

Product Data Sheet

Pacific Blue™ anti-human CD45RA

Catalog # / Size: 2120585 / 25 µg
2120590 / 100 µg

2120615 / 100 tests

Clone: HI100

Isotype: Mouse IgG2b, κ

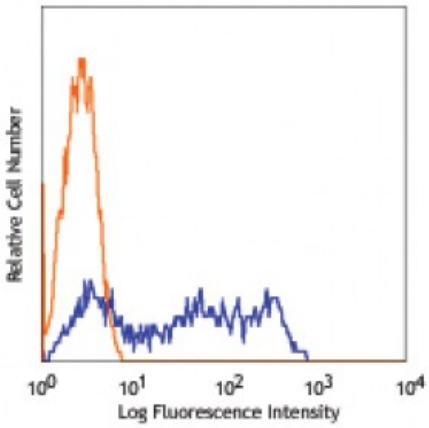
Reactivity: Human

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). microg sizes: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Workshop Number: IV N906

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



Human peripheral blood lymphocytes stained with HI100 Pacific Blue™

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this 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 microL per million cells in 100 microL volume.
For microg sizes, the suggested use of this reagent for immunofluorescent staining is ≤0.5 microg per million cells in 100 microL 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.

Application Notes: Additional reported applications (for relevant formats of this clone) include: inhibition of CD45 functions2, immunohistochemical staining of frozen tissue sections3 and formalin-fixed paraffin-embedded tissue sections4, and immunofluorescence[15,16].

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

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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*. 134:3578. PubMed
15. Canque B, *et al.* 2000. *Blood* 96:3748. (IF)
16. Imanguli MM, *et al.* 2009. *Blood* 13:3620. (IF)

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.