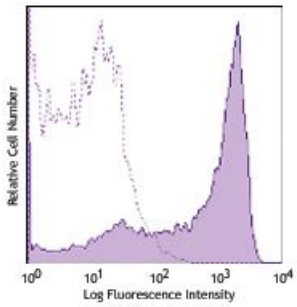
SONY

Product Data Sheet

APC/Cyanine7 anti-human CD45RA

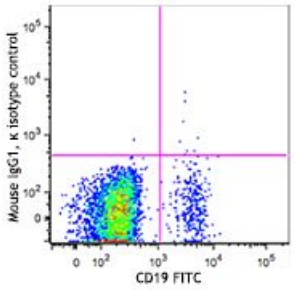
Catalog # / Size:	2120635 / 25 tests 2120640 / 100 tests
Clone:	HI100
Isotype:	Mouse IgG2b, κ
Reactivity:	Human
Preparation:	The antibody was purified by affinity chromatography and conjugated with APC/Cyanine7 under optimal conditions.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).
Workshop Number:	IV N906
Concentration:	Lot-specific



Human peripheral blood lymphocytes were stained CD45RA (clone HI100) APC/Cy7 (filled histogram) or mouse IgG2b, κAPC/Cy7 isotype control (open histogram).

Applications:

Applications:	Flow Cytometry
Recommended Usage:	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. **Test size products are transitioning from 20 µl to 5 µl per test**. Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 µl staining volume or per 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, immunohistochemical staining of frozen tissue sections3 and formalin-fixed paraffin-embedded tissue sections4, and immunofluorescence[15,16].



Human peripheral blood lymphocytes were stained with anti-human CD4 FITC and anti-human CD25 (clone M-A251) Spark YG™ 581 (left) or anti-human CD4 FITC only (right).

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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-F)
4. Imanguli MM, *et al.* 2009. *Blood*. 113:3620 (IHC-P)
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
9. Thakral D, *et al.* 2008. *J. Immunol.* 180:7431. (FC) PubMed
10. Alanio C, *et al.* 2010. *Blood* 115:3718. (FC) PubMed
11. Iannello A, *et al.* 2010. *J. Immunol.* 184:114. (FC) PubMed
12. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
13. Guereau-de-Arellan M, *et al.* 2011. *Brain*. 134:3578. PubMed
14. Canque B, *et al.* 2000. *Blood* 96:3748. (ICC)
15. Imanguli MM, *et al.* 2009. *Blood* 13:3620. (ICC)
16. Stoeckius M, et al. 2017. Nat. Methods. 14:865. (PG)
17. Peterson VM, et al. 2017. Nat. Biotechnol. 35:936. (PG)

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/naï ve 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.

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