

Technical Data Sheet

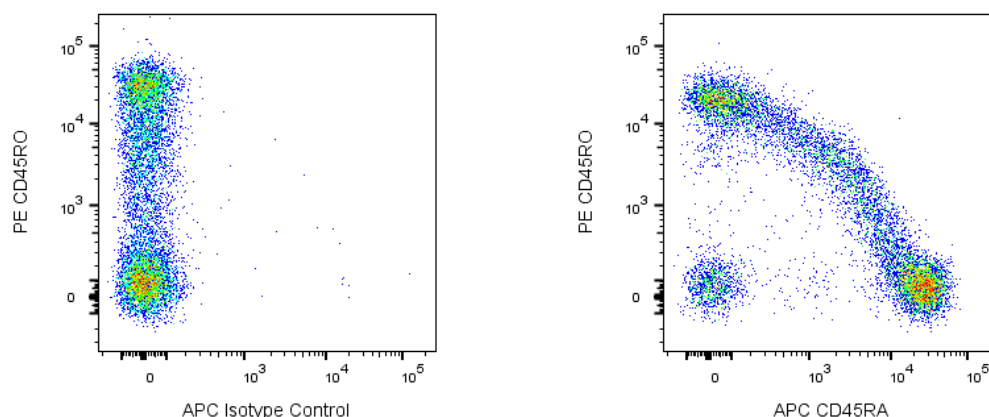
APC Mouse Anti-Human CD45RA

Product Information

Material Number:	550855
Alternate Name:	CD45R; PTPRC; LCA; Leukocyte common antigen
Size:	100 Tests
Vol. per Test:	20 µl
Clone:	HI100
Isotype:	Mouse IgG2b, κ
Reactivity:	QC Testing: Human
RRID:	AB_398468
Workshop:	IV N906
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The HI100 monoclonal antibody specifically binds to the 220 kDa isoform of the human leukocyte common antigen, CD45RA. CD45RA is expressed on approximately 40-50% of peripheral CD4+ T cells, 50% of peripheral CD8+ T cells and on a portion of B cells and monocytes. The CD45RA antigen is expressed by naïve and activated T cells. CD45RA-specific antibodies are useful for the study of the suppressor/inducer subpopulation of CD4+ lymphocytes.



Multicolor flow cytometric analysis of CD45RA expression on human peripheral blood lymphocytes. Human whole blood was stained with PE Mouse Anti-Human CD45RO antibody (Cat. No. 555493/561889), and with either APC Mouse IgG2b, κ Isotype Control (Cat. No. 555745; Left Plot) or APC Mouse Anti-Human CD45RA antibody (Cat. No. 550855/561884; Right Plot). The erythrocytes were lysed with BD FACS™ Lysing Solution (Cat. No. 349202). Bivariate pseudocolor density plots showing the correlated expression of CD45RA (or Ig Isotype control) versus CD45RO was derived from gated events with the forward and side light-scatter characteristics of intact lymphocytes. Flow cytometry and data analysis were performed using a BD LSRFortessa™ Cell Analyzer System and FlowJo™ software.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The antibody was conjugated to the dye under optimum conditions and unconjugated antibody and free dye were removed.

Application Notes

Application

Flow cytometry	Routinely Tested
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Recommended Assay Procedure:

BD® CompBeads can be used as surrogates to assess fluorescence spillover (Compensation). When fluorochrome conjugated antibodies are bound to BD® CompBeads, they have spectral properties very similar to cells. However, for some fluorochromes there can be small differences in spectral emissions compared to cells, resulting in spillover values that differ when compared to biological controls. It is strongly recommended that when using a reagent for the first time, users compare the spillover on cells and BD® CompBeads to ensure that BD® CompBeads are appropriate for your specific cellular application.

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Suggested Companion Products

Catalog Number	Name	Size	Clone
555745	APC Mouse IgG2b κ Isotype Control	100 Tests	27-35
555493	PE Mouse Anti-Human CD45RO	100 Tests	UCHL1
561889	PE Mouse Anti-Human CD45RO	25 Tests	UCHL1
349202	Lysing Solution 10X Concentrate	100 mL	(none)
555899	Lysing Buffer	100 mL	(none)
554656	Stain Buffer (FBS)	500 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1×10^6 cells in a 100- μ l experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
5. Please refer to www.bdbiosciences.com/us/s/resources for technical protocols.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
7. This APC-conjugated reagent can be used in any flow cytometer equipped with a dye, HeNe, or red diode laser.
8. Please refer to <http://regdocs.bd.com> to access safety data sheets (SDS).

References

Barclay NA, Brown MH, Birkeland ML, et al, ed. *The Leukocyte Antigen FactsBook*. San Diego, CA: Academic Press; 1997(Biology)

Knapp W, W. Knapp .. et al., ed. *Leucocyte typing IV : white cell differentiation antigens*. Oxford New York: Oxford University Press; 1989:1-1182. (Clone-specific)

Koristka S, Cartellieri M, Theil A, et al. Retargeting of human regulatory T cells by single-chain bispecific antibodies. *J Immunol*. 2012; 188(3):1551-8. (Clone-specific: Flow cytometry, Fluorescence activated cell sorting)

Zola H. *Leukocyte and stromal cell molecules : the CD markers*. Hoboken, N.J.: Wiley-Liss; 2007(Biology)