Technical Data Sheet

# APC-Cy™7 Mouse Anti-Human CD45

## Product Information

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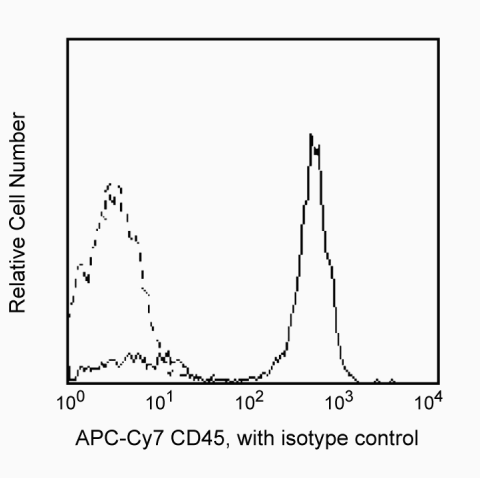
|---|---|
| **Material Number:** | **561863** |
| **Alternate Name:** | PTPRC; LCA; L-CA; Leukocyte Common Antigen; T200; GP180; LY5 |
| **Size:** | 25 Tests |
| **Vol. per Test:** | 5 µl |
| **Clone:** | 2D1 |
| **Isotype:** | Mouse IgG1, κ |
| **Reactivity:** | QC Testing: Human |
| **Storage Buffer:** | Aqueous buffered solution containing BSA and ≤0.09% sodium azide. |

## Description

The clone 2D1 recognizes the CD45 antigen, a tyrosine phosphatase. There are several isoforms of CD45 with molecular weights ranging from 180 to 220 kDa and all are members of the T200 family. The CD45 antigen is present on all human leukocytes, including lymphocytes, monocytes, granulocytes, eosinophils and basophils in peripheral blood and has a role in signal transduction-modifying signals from other surface molecules.




***Flow cytometric analysis of CD45 expression on peripheral blood lymphocytes**. Human peripheral blood cells were stained with either APC-Cy™7 Mouse Anti-Human CD45 (Cat. No. 561863/557833, solid line histogram) or APC-Cy™7 Mouse IgG1 κ isotype control (Cat. No. 557873, dashed line histogram). Erythrocytes were lysed with BD FACS™ Lysing Solution (Cat. No. 349202).*

## Preparation and Storage

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

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

The antibody was conjugated with APC-Cy7 under optimum conditions, and unconjugated antibody and free APC-Cy7 were removed.

## Application Notes

**Application**

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| Flow cytometry | Routinely Tested |

## Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|---|---|---|---|
| 554656 | Stain Buffer (FBS) | 500 mL | (none) |
| 557873 | APC-Cy™7 Mouse IgG1, κ Isotype Control | 100 Tests | MOPC-21 |
| 554657 | Stain Buffer (BSA) | 500 mL | (none) |
| 349202 | BD FACS™ Lysing Solution | 100 mL | (none) |
| 555899 | Lysing Buffer | 100 mL | (none) |
| 557833 | APC-Cy™7 Mouse Anti-Human CD45 | 100 Tests | 2D1 |

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| 877.232.8995 | 866.979.9408 | 32.2.400.98.95 | 0120.8555.90 | 65.6861.0633 | 55.11.5185.9995 |

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## 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-µl experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. 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.
5. APC-Cy7 tandem fluorochrome emission is collected in a detector for fluorescence wavelengths of 750 nm and higher.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
7. Please observe the following precautions: Absorption of visible light can significantly alter the energy transfer occurring in any tandem fluorochrome conjugate; therefore, we recommend that special precautions be taken (such as wrapping vials, tubes, or racks in aluminum foil) to prevent exposure of conjugated reagents, including cells stained with those reagents, to room illumination.
8. APC-Cy7 is a tandem fluorochrome composed of Allophycocyanin (APC), which is excited by laser lines between 595 and 647 nm and serves as an energy donor, coupled to the cyanine dye Cy7™, which acts as an energy acceptor and fluoresces at 780 nm. BD Biosciences Pharmingen has maximized the fluorochrome energy transfer in APC-Cy7, thus maximizing its fluorescence emission intensity, minimizing residual emission from APC, and minimizing required electronic compensation in multilaser-laser flow cytometry systems. Note: Although every effort is made to minimize the lot-to-lot variation in residual emission from APC, it is strongly recommended that every lot be tested for differences in the amount of compensation required and that individual compensation controls are run for each APC-Cy7 conjugate.
9. Warning: Some APC-Cy7 and PE-Cy7 conjugates show changes in their emission spectrum with prolonged exposure to formaldehyde. If you are unable to analyze fixed samples within four hours, we recommend that you use BD™ Stabilizing Fixative (Cat. No. 338036).
10. Cy is a trademark of GE Healthcare.
11. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

## References


Beavis AJ, Pennline KJ. Allo-7: a new fluorescent tandem dye for use in flow cytometry. *Cytometry.* 1996; 24(4):390-395. (Biology)
Knapp W, Dörken B, Gilks WR, et al, ed. *Leucocyte Typing IV.* New York, NY: Oxford University Press; 1989:1-1182. (Biology)
Roederer M, Kantor AB, Parks DR, Herzenberg LA. Cy7PE and Cy7APC: bright new probes for immunofluorescence. *Cytometry.* 1996; 24(3):191-197. (Biology)
Terry LA, Brown MH, Beverley PC. The monoclonal antibody, UCHL1, recognizes a 180,000 MW component of the human leucocyte-common antigen, CD45. *Immunology.* 1988; 64(2):331-336. (Biology)



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