Technical Data Sheet

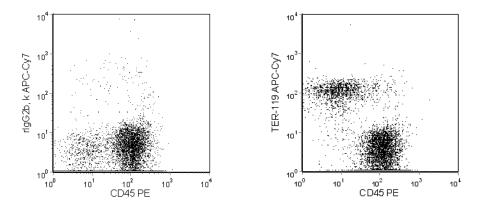
APC-Cy[™]7 Rat Anti-Mouse TER-119/Erythroid Cells

Product Information

Material Number:	560509
Alternate Name:	Lymphocyte antigen 76; Ly76; Ly-76; TER-119; Ter119
Size:	50 µg
Concentration:	0.2 mg/ml
Clone:	TER-119
Immunogen:	Mouse Fetal Liver
Isotype:	Rat (WI) IgG2b, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

The TER-119 antibody specifically binds to a 52 kDa molecule associated with glycophorin A on cells of the erythroid lineage in embryonic yolk sac, fetal liver, newborn liver, adult bone marrow, adult peripheral blood, and adult lymphoid organs. The TER-119 antigen is expressed on erythroid cells from pro-erythroblast through mature erythrocyte stages, but not on cells with BFU-E or CFU-E activities. The TER-119 epitope is not detected on hematopoietic stem cells, lymphoid cells, or erythroleukemia lines. The TER-119 mAb is a component of the "lineage cocktail" used in studies of hematopoietic progenitors to detect, or deplete cells committed to the hematopoietic lineages.



Analysis of TER-119 on mouse bone marrow. Bone marrow cells from BALB/c mice were stained with a APC-CyTM7 Rat IgG2b, κ isotype control (left panel) or with the APC-CyTM7 Rat Anti-Mouse TER-119 antibody (right panel) in conjunction with a PE Rat Anti-Mouse CD45 antibody. Dot plots were derived from gated events based on light scattering characteristics for bone marrow. Flow cytometry was performed on a BD LSRTM II flow cytometry system.

30-F11

0.1 mg

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						
Flow cytometry	Routinely Tested					
Suggested Compan	ion Products					
Catalog Number	Name		Size	Clone		
552773	APC-Cy™7 Rat IgG2b κ Isotype Control		0.1 mg	A95-1		

Product Notices

553081

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.

2. An isotype control should be used at the same concentration as the antibody of interest.

PE Rat Anti-Mouse CD45

3. 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.

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- 4. 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 BDTM Stabilizing Fixative (Cat. No. 338036).
- 5. This product is subject to proprietary rights of Amersham Biosciences Corp. and Carnegie Mellon University and made and sold under license from Amersham Biosciences Corp. This product is licensed for sale only for research. It is not licensed for any other use. If you require a commercial license to use this product and do not have one return this material, unopened to BD Biosciences, 10975 Torreyana Rd, San Diego, CA 92121 and any money paid for the material will be refunded.
- 6. This conjugated product is sold under license to the following patent: US Patent No. 5,714,386.
- 7. Cy is a trademark of Amersham Biosciences Limited. This conjugated product is sold under license to the following patents: US Patent Nos. 5,486,616; 5,569,587; 5,569,766; 5,627,027.
- 8. APC-Cy7 tandem fluorochrome emission is collected in a detector for fluorescence wavelengths of 750 nm and higher.
- 9. 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 Cy7TM, 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.
- 10. 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.
- 11. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
- 12. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Ikuta K, Kina T, MacNeil I, et al. A developmental switch in thymic lymphocyte maturation potential occurs at the level of hematopoietic stem cells. Cell. 1990; 62(5):863-874. (Biology: Depletion)

Kina T, Ikuta K, Takayama E, et al. The monoclonal antibody TER-119 recognizes a molecule associated with glycophorin A and specifically marks the late stages of murine erythroid lineage. Br J Haematol. 2000; 109(2):280-287. (Immunogen: Immunoprecipitation, Western blot)

Kitajima K, Kojima M, Nakajima K, et al. Definitive but not primitive hematopoiesis is impaired in jumonji mutant mice. *Blood.* 1999; 93(1):87-95. (Biology) Maraskovsky E, Brasel K, Teepe M, et al. Dramatic increase in the numbers of functionally mature dendritic cells in Flt3 ligand-treated mice: multiple dendritic cell subpopulations identified. *J Exp Med.* 1996; 184(5):1953-1962. (Biology: Cytotoxicity)

Osawa M, Tokumoto Y, Nakauchi H. Hematopoietic stem cells. In: Herzenberg LA, Weir DM, Blackwell C, ed. Weir's Handbook of Experimental Immunology, 5th Edition. Cambridge: Blackwell Science; 1996:66.1-66.5. (Biology: Depletion)

Roederer M, Kantor AB, Parks DR, Herzenberg LA. Cy7PE and Cy7APC: bright new probes for immunofluorescence. *Cytometry*. 1996; 24(3):191-197. (Methodology: Flow cytometry)