

## Technical Data Sheet

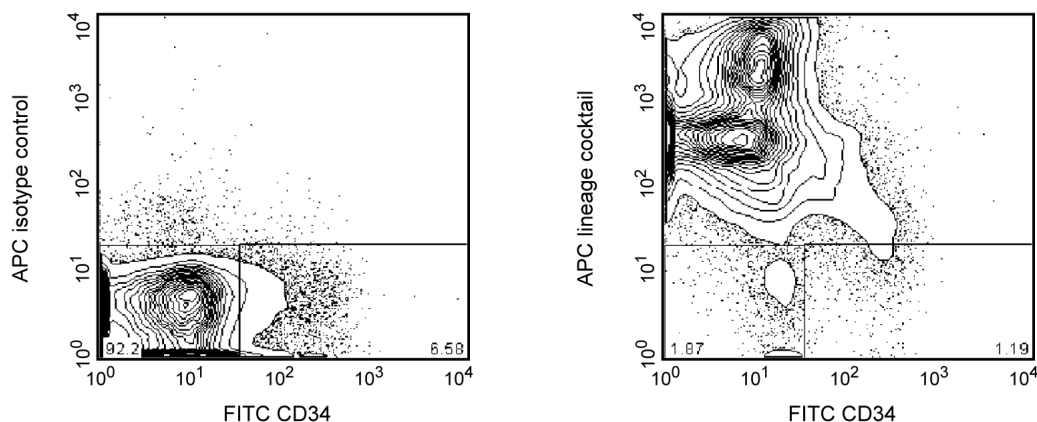
**APC Mouse Lineage Antibody Cocktail, with Isotype Control****Product Information**

**Material Number:** 558074  
**Reactivity:** QC Testing: Mouse  
**Component:** 51-9003632  
**Description:** APC Mouse Lineage Antibody Cocktail  
**Size:** 100 Tests (1 ea)  
**Vol. per Test:** 20 µl  
**Storage Buffer:** Aqueous buffered solution containing BSA, protein stabilizer, and ≤0.09% sodium azide.

**Component:** 51-9003633  
**Description:** APC Mouse Lineage Isotype Control Cocktail  
**Size:** 100 Tests (1 ea)  
**Vol. per Test:** 20 µl  
**Storage Buffer:** Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

**Description**

The APC Mouse Lineage Antibody Cocktail has been designed to react with cells from the major hematopoietic lineages, such as T lymphocytes, B lymphocytes, monocytes/macrophages, NK cells, erythrocytes, and granulocytes. This pre-diluted Cocktail of five APC-conjugated antibodies is designed for the flow cytometric identification of hematopoietic progenitors in mouse bone marrow. Components include clone 145-2C11, which recognizes Mouse CD3ε; M1/70, which recognizes CD11b; RA3-6B2, which recognizes CD45R/B220; TER-119, which recognizes Ly-76, mouse erythroid cells; and RB6-8C5, which recognizes Ly-6G and Ly-6C. APC Mouse Lineage Isotype Control Cocktail contains equivalent concentrations of isotype-matched negative-control immunoglobulin. Additional fluorochrome-labeled reagents may be combined with the APC Mouse Lineage Antibody Cocktail, and the APC Mouse Lineage Isotype Control Cocktail, to further characterize hematopoietic progenitor subpopulations.



**Identification of CD34+ and CD34- subpopulations of hematopoietic progenitors.** BALB/c bone marrow cells were treated with Mouse BD Fc Block™ Purified anti-CD16/CD32 (Cat. No. 553141/553142), stained with FITC Rat anti-Mouse CD34 (Cat. No. 553733) and either APC Mouse Lineage Isotype Control Cocktail (left panel) or APC Mouse Lineage Antibody Cocktail (right panel, Cat. No. 558074). Dead cells were excluded from analysis by staining with Propidium Iodide Staining Solution (Cat. No. 556463). Flow cytometry was performed on a BD FACSCalibur™ flow cytometry system.

**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 to APC under optimum conditions, and unconjugated antibody and free APC were removed.

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558074 Rev. 4



## Application Notes

### Application

Flow cytometry

Routinely Tested

### Recommended Assay Procedure:

20  $\mu$ l of the antibody or isotype control cocktail is sufficient to stain each sample of  $10^6$  leukocytes for flow cytometric analysis. We recommend the use of Mouse BD Fc Block™ purified anti-mouse CD16/CD32 (Cat. No. 553141/553142) for optimal staining. The APC Mouse Lineage Antibody Cocktail can be used to deplete cells bearing the hematopoietic lineage markers by flow cytometric or immunomagnetic (using BD™ IMag anti-Allophycocyanin (APC) Particles - DM, Cat. No. 557932) sorting. The APC fluorochrome is excited by laser lines from 595 to 647 nm, and its emission is collected in a detector for fluorescence wavelengths between 640 and 680 nm.

### Suggested Companion Products

Catalog Number	Name	Size	Clone
553141	Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™)	0.1 mg	2.4G2
553733	FITC Rat anti-Mouse CD34	0.5 mg	RAM34
556463	Propidium Iodide Staining Solution	2 mL	(none)
557932	APC Magnetic Particles - DM	5 mL	E30-221
553142	Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™)	0.5 mg	2.4G2
554656	Stain Buffer (FBS)	500 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)

### Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
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. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at [www.bdbiosciences.com/colors](http://www.bdbiosciences.com/colors).
5. This APC-conjugated reagent can be used in any flow cytometer equipped with a dye, HeNe, or red diode laser.
6. Please refer to [www.bdbiosciences.com/pharmingen/protocols](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.

### References

- Goodell MA, Rosenzweig M, Kim H, et al. Dye efflux studies suggest that hematopoietic stem cells expressing low or undetectable levels of CD34 antigen exist in multiple species. *Nat Med.* 1997; 3(12):1337-1345. (Biology)
- Morrison SJ, Wandycz AM, Hemmati HD, Wright DE, Weissman IL. Identification of a lineage of multipotent hematopoietic progenitors. *Development.* 1997; 124(10):1929-1939. (Biology)
- Okada S, Nakauchi H, Nagayoshi K, Nishikawa S, Miura Y, Suda T. In vivo and in vitro stem cell function of c-kit- and Sca-1-positive murine hematopoietic cells. *Blood.* 1992; 80(12):3044-3050. (Biology)
- 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)
- Spangrude GJ, Heimfeld S, Weissman IL. Purification and characterization of mouse hematopoietic stem cells. *Science.* 1988; 241(4861):58-62. (Biology)
- Spangrude GJ, Scollay R. A simplified method for enrichment of mouse hematopoietic stem cells. *Exp Hematol.* 1990; 18(8):920-926. (Biology)