Technical Data Sheet

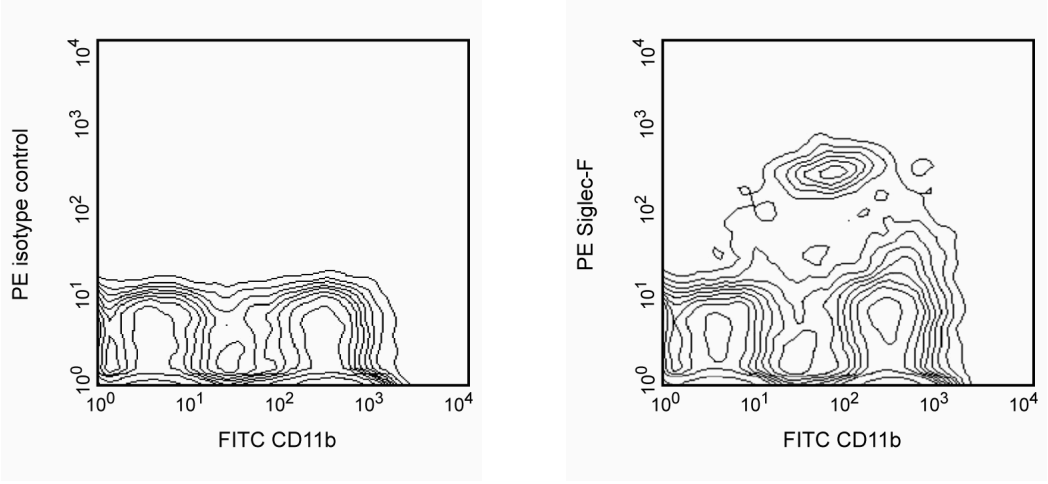
PE Rat Anti-Mouse Siglec-F

Product Information

Material Number:	**562068**
Size:	25 µg
Concentration:	0.2 mg/ml
Clone:	E50-2440
Immunogen:	Mouse Siglec-F and human IgG Fc recombinant fusion protein
Isotype:	Rat (LOU) IgG2a, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The E50-2440 antibody reacts with Siglec-F, the sixth siglec protein to be reported in the mouse. Siglecs are the ***s***ialic acid-binding ***i***mmunoglobulin superfamily ***lec***tins defined in the human, each of which has a distinctive expression pattern in the hematopoietic system and at least some of which are known to mediate cell-cell interactions. Orthologous proteins of human Siglec-1 (Sialoadhesin or CD169), Siglec-2 (CD22), and Siglec-4 (myelin-associated glycoprotein) have been characterized in the mouse. Human Siglec-3 (CD33) and Siglecs-5 through -10 are encoded by a cluster of closely related genes, and each has two cytoplasmic ITIM (***I***mmunoreceptor ***T***yrosine-based ***I***nhibitory ***M***otifs). Similarly, mouse Siglec-F is encoded by a gene in a syntenic cluster in the mouse, and the protein has sialic acid-binding activity and an intracytoplasmic ITIM. Its expression pattern differs from those of the human Siglec-3-related proteins in that it is found on immature cells of the myelomonocytic lineage, with reduced expression on mature neutrophils and monocytes, and not on lymphoid cells. It has been proposed that mAb E50-2440 may be used for identification of immature myelomonocytic cells in the mouse.



Two-color analysis of Siglec-F expression on bone-marrow myeloid cells. *BALB/c bone-marrow leukocytes were simultaneously stained with FITC Rat anti-Mouse CD11b mAb (Cat. No. 557396) and either PE Rat IgG2a, κ Isotype Control (Cat. No. 553930, left panel) or PE Rat anti-Mouse Siglec-F (right panel) in the presence of Purified Rat anti-Mouse CD16/CD32 (Mouse BD Fc Block™, Cat. No. 553141). Flow cytometry was performed on a FACSCalibur™ (BD Biosciences, San Jose, CA).*

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 R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Application

Flow cytometry	Routinely Tested

Recommended Assay Procedure:

Mouse Fc Block™ (purified anti-mouse CD16/CD32 mAb 2.4G2, Cat. No. 553141/553142) may help to reduce non-specific binding to cells bearing Fcγ receptors.

BD Biosciences

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Suggested Companion Products

Catalog Number	Name	Size	Clone
553141	Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™)	0.1 mg	2.4G2
553930	PE Rat IgG2a, κ Isotype Control	0.1 mg	R35-95
557396	FITC Rat Anti-Mouse CD11b	0.1 mg	M1/70
554656	Stain Buffer (FBS)	500 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
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 Fluorochrome Web Page at www.bdbiosciences.com/colors.
5. An isotype control should be used at the same concentration as the antibody of interest.

References

Angata T, Hingorani R, Varki NM, Varki A. Cloning and characterization of a novel mouse Siglec, mSiglec-F: differential evolution of the mouse and human (CD33) Siglec-3-related gene clusters. *J Biol Chem.* 2001; 276(48):45128-45136. (Immunogen: ELISA, Immunofluorescence, Immunohistochemistry)
Crocker PR, Varki A. Siglecs, sialic acids and innate immunity. *Trends Immunol.* 2001; 22(6):337-342. (Biology)