Technical Data Sheet

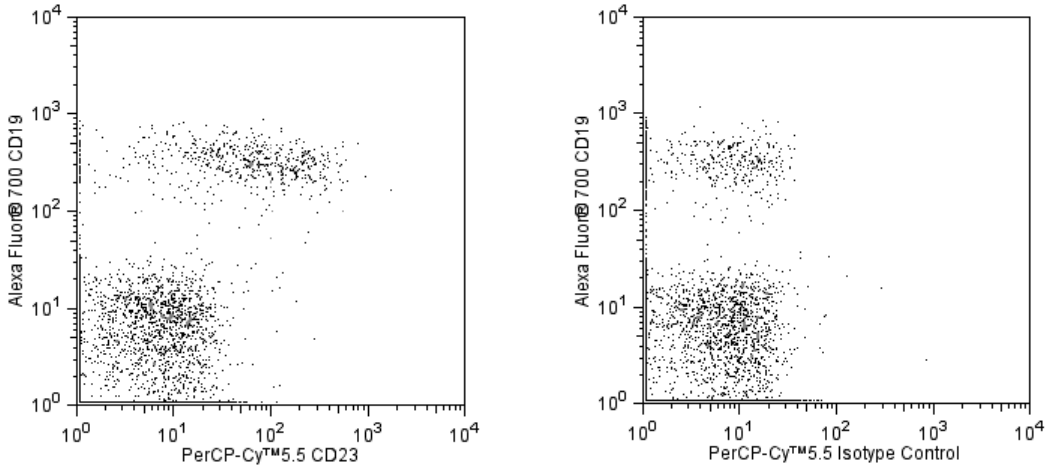
PerCP-Cy™5.5 Mouse Anti-Human CD23

Product Information

Material Number:	**561166**
Alternate Name:	FCER2; FcεRII; Low affinity immunoglobulin epsilon Fc receptor; BLAST-2
Size:	50 tests
Vol. per Test:	5 µl
Clone:	M-L233
Isotype:	Mouse IgG1, κ
Reactivity:	QC Tested: Human
Workshop:	V CD23.15
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The M-L233 antibody specifically binds to the low affinity receptor for human IgE, FcεRII/CD23. CD23 is a type II membrane protein which can be expressed by B cells, monocytes, macrophages, eosinophils, platelets, and dendritic cells. CD23 can mediate IgE-dependent cytotoxicity and phagocytosis by macrophages and eosinophils. Soluble CD23 (sCD23) can be released by CD23-positive cells as a result of proteolytic cleavage of membrane CD23. Larger fragments of sCD23 (e.g., 25-37 kDa) retain their IgE-binding capacity whereas smaller fragments (i.e., ≤ 12 kDa) do not. Soluble CD23 may have immunoregulatory effects on the growth and differentiation of B cells and other cell types.



Flow cytometric analysis of CD23 expression on human peripheral blood lymphocytes. *Whole blood was stained with either PerCP-Cy™5.5 Mouse Anti-Human CD23 antibody (Cat. No. 561166; Left Panel) or with a PerCP-Cy™5.5 Mouse IgG1, κ Isotype Control (Cat. No. 550795; Right Panel) and Alexa Fluor® 700 Mouse anti-Human CD19 (Cat. No. 557921). The erythrocytes were lysed with BD PharmLyse™ Lysing Buffer (Cat. No. 555899). The two-color flow cytometric dot plots were derived from gated events with the forward and side light-scatter characteristics of viable lymphocytes. Flow cytometry was performed using a BD™ LSR II Flow Cytometer System.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
The antibody was conjugated with PerCP-Cy5.5 under optimum conditions, and unconjugated antibody and free PerCP-Cy5.5 were removed. Storage of PerCP-Cy5.5 conjugates in unoptimized diluent is not recommended and may result in loss of signal intensity. Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

Flow cytometry	Routinely Tested

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Suggested Companion Products

Catalog Number	Name	Size	Clone
555899	Lysing Buffer	100 ml	(none)
554656	Stain Buffer (FBS)	500 ml	(none)
550795	PerCP-Cy™5.5 Mouse IgG1 κ Isotype Control	0.1 mg	MOPC-21
557921	Alexa Fluor® 700 Mouse Anti-Human CD19	0.1 mg	HIB19

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. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
5. 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.
6. 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.
7. 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.
8. This PerCP-conjugated product is sold under license to the following patent: US Patent No. 4,876,190.
9. PerCP-Cy5.5–labelled antibodies can be used with FITC- and R-PE–labelled reagents in single-laser flow cytometers with no significant spectral overlap of PerCP-Cy5.5, FITC, and R-PE fluorescence.
10. PerCP-Cy5.5 is optimized for use with a single argon ion laser emitting 488-nm light. Because of the broad absorption spectrum of the tandem fluorochrome, extra care must be taken when using dual-laser cytometers, which may directly excite both PerCP and Cy5.5™. We recommend the use of cross-beam compensation during data acquisition or software compensation during data analysis.
11. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
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References

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Schlossman S, Boumell L, et al, ed. *Leucocyte Typing V.* New York: Oxford University Press; 1995. (Clone-specific)