Technical Data Sheet

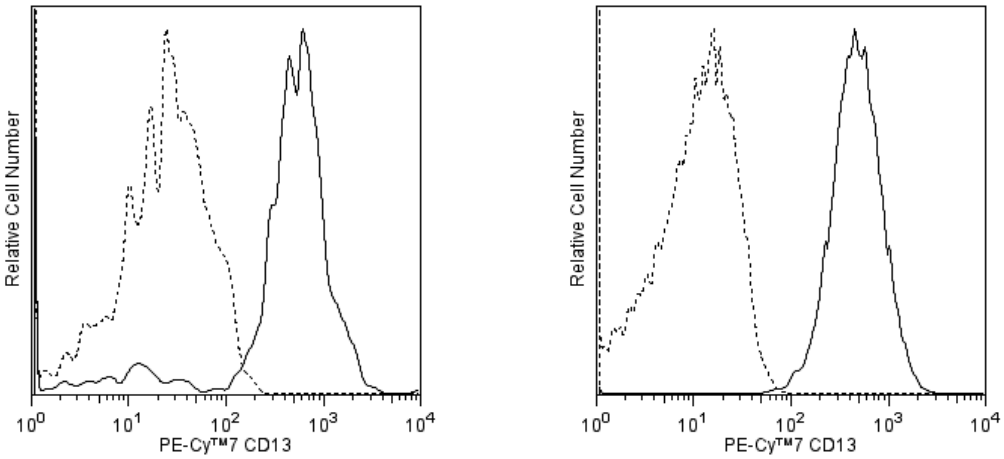
PE-Cy™7 Mouse Anti-Human CD13

Product Information

Material Number:	**561599**
Alternate Name:	ANPEP; APN; Aminopeptidase N; Alanyl aminopeptidase; LAP1; PEPN
Size:	50 Tests
Vol. per Test:	5 µl
Clone:	WM15
Immunogen:	Human AML Cells
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Workshop:	IV M44, M209
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The WM15 monoclonal antibody specifically binds to CD13, the 150 kDa Type II integral membrane glycoprotein which is also known as aminopeptidase N. The CD13 antigen is the receptor for human coronavirus 229E, the causative agent for some cases of upper respiratory infection. This antibody binds to GM-progenitor cells, granulocytic and monocytic cells, and mast cells, but not to lymphocytes, platelets or erythrocytes. Aminopeptidase N is involved in the metabolism of many regulatory peptides.



Flow cytometric analysis of CD13 expression on human peripheral blood monocytes and granulocytes. *Whole blood was stained with either PE-Cy™7 Mouse Anti-Human CD13 antibody (Cat. No. 561599; solid line histogram) or with a PE-Cy™7 Mouse IgG1, κ Isotype Control (Cat. No. 557646; dashed line histogram). The erythrocytes were lysed with BD PharmLyse™ Lysing Buffer (Cat. No. 555899). The fluorescence histograms were derived from events with the forward and side light-scatter characteristics of viable monocytes (Left Panel) or granulocytes (Right Panel). Flow cytometry was performed using a BD™ LSR II Flow Cytometer 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 with PE-Cy7 under optimum conditions, and unconjugated antibody and free PE-Cy7 were removed.

Application Notes

Application

Flow cytometry	Routinely Tested

Recommended Assay Procedure:

BD™ CompBeads can be used as surrogates to assess fluorescence spillover (Compensation). When fluorochrome conjugated antibodies are bound to CompBeads, they have spectral properties very similar to cells. However, for some fluorochromes there can be small differences in spectral emissions compared to cells, resulting in spillover values that differ when compared to biological controls. It is strongly recommended that when using a reagent for the first time, users compare the spillover on cells and CompBead to ensure that BD Comp beads are appropriate for your specific cellular application.

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Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 mL	(none)
555899	Lysing Buffer	100 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)
349202	Lysing Solution 10X Concentrate	100 mL	(none)
557646	PE-Cy™7 Mouse IgG1 κ Isotype Control	100 Tests	MOPC-21

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 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.
5. 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.
6. 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).
7. PE-Cy7 is a tandem fluorochrome composed of R-phycoerythrin (PE), which is excited by 488-nm light and serves as an energy donor, coupled to the cyanine dye Cy7, which acts as an energy acceptor and fluoresces maximally at 780 nm. PE-Cy7 tandem fluorochrome emission is collected in a detector for fluorescence wavelengths of 750 nm and higher. Although every effort is made to minimize the lot-to-lot variation in the efficiency of the fluorochrome energy transfer, differences in the residual emission from PE may be observed. Therefore, we recommend that individual compensation controls be performed for every PE-Cy7 conjugate. PE-Cy7 is optimized for use with a single argon ion laser emitting 488-nm light, and there is no significant overlap between PE-Cy7 and FITC emission spectra. When using dual-laser cytometers, which may directly excite both PE and Cy7, we recommend the use of cross-beam compensation during data acquisition or software compensation during data analysis.
8. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
9. Please refer to http://regdocs.bd.com to access safety data sheets (SDS).
10. Please refer to www.bdbiosciences.com/us/s/resources for technical protocols.

References

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