

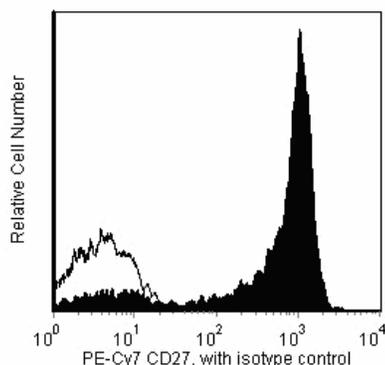
## Technical Data Sheet

**PE-Cy™7 Mouse Anti-Human CD27****Product Information**

<b>Material Number:</b>	<b>560609</b>
<b>Alternate Name:</b>	TNFRSF7; TNF receptor superfamily, member 7; T14; Tp55; S152
<b>Size:</b>	50 Tests
<b>Vol. per Test:</b>	5 µl
<b>Clone:</b>	M-T271
<b>Immunogen:</b>	Human T-CLL cells
<b>Isotype:</b>	Mouse (BALB/c) IgG1, κ
<b>Reactivity:</b>	QC Testing: Human Tested in Development: Rhesus, Cynomolgus, Baboon
<b>Workshop:</b>	IV T187; V 5T CD27.03
<b>Storage Buffer:</b>	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

**Description**

The M-T271 monoclonal antibody specifically binds to CD27. CD27 presents as a type I transmembrane, disulphide-linked 110 kDa homodimer comprised of two polypeptide chains. The CD27 molecule is a lymphocyte-specific member of the TNF/NGF-R family, and is expressed on a subset of human thymocytes and on the majority of mature T lymphocytes, activated B cells and NK cells. CD27 is highly induced on T cells after TCR stimulation. CD27 binds to CD70 (also known as, CD27 ligand or CD27L) and may be involved in cellular interaction of T and B lymphocytes.



**Flow cytometric analysis of CD27 on human peripheral blood lymphocytes.** Whole blood was stained with either PE-Cy™7 Mouse IgG1, κ Isotype Control (Cat. No. 557872; dashed line histogram) or PE-Cy™7 Mouse Anti-Human CD27 (Cat. No. 560609; solid line histogram). Erythrocytes were lysed with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899). Fluorescence histograms depicting CD27 (or Ig isotype control) expression were derived from gated events with the side and forward light-scattering characteristics of viable lymphocytes. Flow cytometry was carried out on a BD™ LSR II 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
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**Suggested Companion Products**

Catalog Number	Name	Size	Clone
557872	PE-Cy™7 Mouse IgG1 κ Isotype Control	100 Tests	MOPC-21
555899	Lysing Buffer	100 mL	(none)
349202	BD FACS™ Lysing Solution	100 mL	(none)
554656	Stain Buffer (FBS)	500 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)

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## Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use  $1 \times 10^6$  cells in a 100- $\mu$ l 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. 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.
5. 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).
6. 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.
7. 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.
8. 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).
9. Species testing during development may have been performed with a different format of the same clone. Selected applications have been tested for cross-reactivity.
10. Cy is a trademark of GE Healthcare.
11. Please refer to [www.bdbiosciences.com/pharmingen/protocols](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.

## References

- Bigler RD, Bushkin Y, Chiorazzi N. S152 (CD27). A modulating disulfide-linked T cell activation antigen. *J Immunol.* 1988; 141(1):21-28. (Biology)
- Bigler RD, Donat TL, Boselli CM. Definition of three epitopes of the CD27 molecule [P 120->55] present on activated normal lymphocytes. In: Knapp W. W. Knapp .. et al., ed. *Leucocyte typing IV : white cell differentiation antigens*. Oxford New York: Oxford University Press; 1989:351-352. (Biology)
- Schlossman SF, Stuart F, Schlossman .. et al., ed. *Leucocyte typing V : white cell differentiation antigens : proceedings of the fifth international workshop and conference held in Boston, USA, 3-7 November, 1993*. Oxford: Oxford University Press; 1995(Biology)