

## Technical Data Sheet

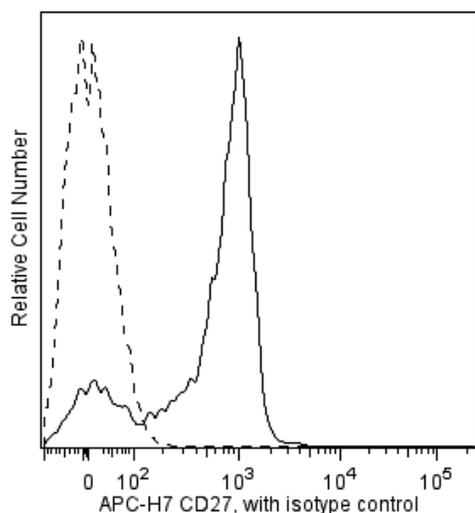
## APC-H7 Mouse Anti-Human CD27

## Product Information

<b>Material Number:</b>	<b>560222</b>
<b>Alternate Name:</b>	TNFRSF7; TNF receptor superfamily, member 7; T14; Tp55; S152
<b>Size:</b>	100 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, protein stabilizer, 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 expression on human peripheral blood lymphocytes.** Whole blood was stained with either APC-H7 Mouse IgG1, κ Isotype Control (Cat. No. 560167; dashed line histogram) or APC-H7 Mouse Anti-Human CD27 (Cat. No. 560222/560223; solid line histogram). Erythrocytes were lysed with BD PharmLyse™ Lysing Buffer (Cat. No. 555899). Fluorescence histograms depicting CD27 (or Ig isotype) expression were derived from gated events with the side and forward light-scattering characteristics of viable lymphocytes. Flow cytometry was performed 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 APC-H7 under optimum conditions, and unconjugated antibody and APC-H7 were removed.

## Application Notes

## Application

Flow cytometry	Routinely Tested
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560222 Rev. 3



## Suggested Companion Products

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
560167	APC-H7 Mouse IgG1, $\kappa$ Isotype Control	0.1 mg	MOPC-21
560223	APC-H7 Mouse Anti-Human CD27	25 Tests	M-T271
554656	Stain Buffer (FBS)	500 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)
349202	BD FACST <sup>™</sup> Lysing Solution	100 mL	(none)
555899	Lysing Buffer	100 mL	(none)

## 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. BD APC-H7 is a tandem conjugate and an analog of APC-Cy7 with the same spectral properties. It has decreased intensity but it is engineered for greater stability and less spillover in the APC channel and consequently offers better performance than APC-Cy7. It has an absorption maximum of approximately 650 nm. When excited by light from a red laser, the APC fluorochrome can transfer energy to the cyanine dye, which then emits at a longer wavelength. The resulting fluorescent emission maximum is approximately 767 nm. BD recommends that a 750-nm longpass filter be used along with a red-sensitive detector such as the Hamamatsu R3896 PMT. As with APC-Cy7 special filters are required when using APC-H7 in conjunction with APC.  
Note: Although our APC-H7 products demonstrate higher lot-to-lot consistency than other APC tandem conjugate products, and every effort is made to minimize the lot-to-lot variation in residual emission from APC, it is strongly recommended that every lot be tested for differences in the amount of compensation required and that individual compensation controls are run for each APC-H7 conjugate.
6. Although BD APC-H7 is engineered to minimize spillover to the APC channel and is more stable and less affected by light, temperature, and formaldehyde-based fixatives, compared to other APC-cyanine tandem dyes, it is still good practice to minimize as much as possible, any light, temperature and fixative exposure when working with all fluorescent conjugates.
7. 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).
8. 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.
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/pharming/en/protocols](http://www.bdbiosciences.com/pharming/en/protocols) for technical protocols.

## References

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