

Technical Data Sheet

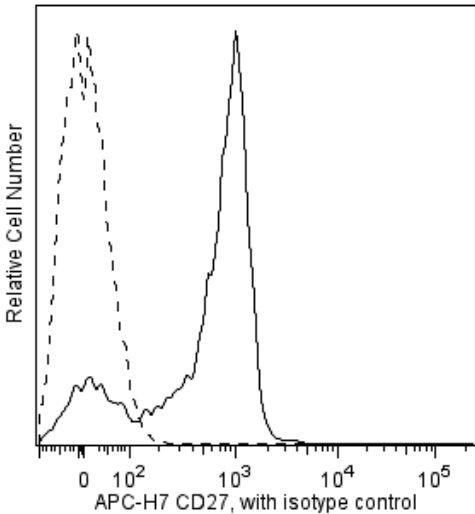
APC-H7 Mouse Anti-Human CD27

Product Information

Material Number:	560223
Size:	25 tests
Vol. per Test:	5 µl
Clone:	M-T271
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Workshop:	V 5T CD27.03
Storage Buffer:	Aqueous buffered solution containing BSA, protein stabilizer, and ≤0.09% sodium azide.

Description

Reacts with a disulphide-linked 110 kDa dimer of two polypeptide chains. CD27 molecule is a lymphocyte-specific member of the TNF/NGF-R family, and is expressed on the subset of human thymocytes and on the majority of mature T lymphocytes. CD27 is highly induced on T cells after TCR stimulation. CD27 may be involved in cellular interaction of T and B lymphocytes.



Flow cytometric analysis of APC-H7 anti-human CD27 on human lymphocytes. Whole blood was stained with APC-H7 anti-human CD27 (clone M-T271, Cat. No. 560222/560223) and compared to whole blood stained with a APC-H7 mouse IgG1 isotype control (clone MOPC-21, Cat. No. 560167). The isotype control is represented by a dashed line and the APC-H7 anti-human CD27 by the solid line. Lymphocytes were selected by light scatter profile. Flow cytometry was performed on a BD™ LSR II flow cytometry 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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Suggested Companion Products

Catalog Number	Name	Size	Clone
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Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1×10^6 cells in a 100- μ l experimental sample (a test).
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. BD APC-H7 is a tandem conjugate and an analog of APC-CyTM7 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.
Note: CyTM is a trademark of Amersham Biosciences Limited.
4. 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.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/pharmingen/colors.
6. 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.
7. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

- Schlossman S, Boumell L, et al, ed. *Leukocyte Typing V*. New York: Oxford University Press; 1995.(Biology)
- 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, Dorken B, Rieber EP, et al, ed. *Leukocyte Typing IV: White Cell Differentiation Antigens*. New York: Oxford University Press; 1989:351-352.(Clone-specific)
- Watts TH. TNF/TNFR family members in costimulation of T cell responses. *Annu Rev Immunol*. 2005; 23:23-68.(Biology)