

Technical Data Sheet

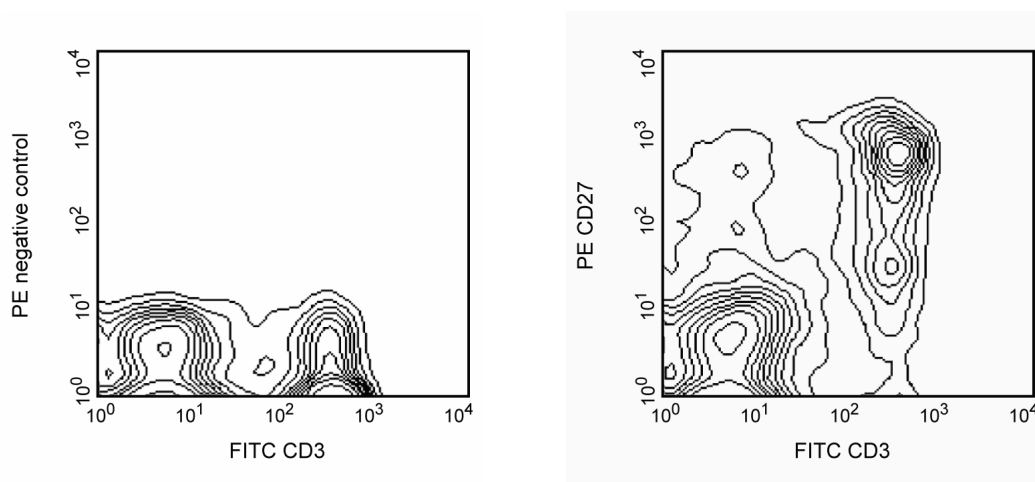
PE Hamster Anti-Mouse CD27

Product Information

Material Number:	561785
Alternate Name:	Tnfrsf7; Tumor necrosis factor receptor superfamily member 7; Tp55; S152
Size:	25 µg
Concentration:	0.2 mg/ml
Clone:	LG.3A10
Immunogen:	Armenian hamster fibroblast line ARHO12 transfected with mouse Cd27 cDNA
Isotype:	Armenian Hamster IgG1, κ
Reactivity:	QC Testing: Mouse Tested in Development: Rat
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The LG.3A10 monoclonal antibody specifically binds to CD27, a lymphocyte-restricted member of the Tumor Necrosis Factor Receptor family which binds to CD70. The CD27 molecule is a 45-kDa transmembrane glycoprotein which is constitutively expressed by lymphocytes of the T lineage: virtually all thymocytes and over 90% of peripheral T cells bearing both αβ and γδ T-cell receptors. CD27 cooperates with the pre-TCR in mediating thymocyte differentiation and expansion. In addition, one to ten percent of mature peripheral B cells express CD27, and CD27's role in the differentiation of human plasma cells has been studied. Mouse NK cells, freshly isolated and IL-2-activated, also express CD27. In the bone marrow, CD27 is found on a progenitor population which provides short-term hematopoietic reconstitution. Cells of the myeloid lineage do not express CD27. Cross-linked LG.3A10 mAb has been reported to amplify the proliferative response of purified T lymphocytes to suboptimal mitogenic stimulation¹ and to enhance NK-cell proliferation and IFN-γ production. In contrast, non-cross-linked LG.3A10 mAb inhibits CD3-induced pre-T cell development by interfering with the receptor-ligand interaction. This hamster mAb to a mouse leukocyte antigen has been observed to cross-react with a similar population of rat leukocytes.



Expression of CD27 on mouse splenocytes. C57BL/6 splenocytes were stained simultaneously with PE Hamster anti-Mouse CD27 (right panel) and FITC Rat anti-Mouse CD3 Molecular Complex (Cat. No. 555274). Flow cytometry was performed on a BD FACScan™ flow cytometry system.

Preparation and Storage

Store undiluted at 4°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Application

Flow cytometry	Routinely Tested
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Recommended Assay Procedure:

This antibody conjugate is compatible with intracellular staining protocols using the BD Cytotfix/Cytoperm™ Kit (Cat. No. 554714).

Suggested Companion Products

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
553972	PE Hamster IgG1 κ Isotype Control	0.1 mg	A19-3
555274	FITC Rat Anti-Mouse CD3 Molecular Complex	0.5 mg	17A2
561827	FITC Hamster Anti-Mouse CD3e	25 μ g	145-2C11

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. 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.
4. Although hamster immunoglobulin isotypes have not been well defined, BD Biosciences Pharmingen has grouped Armenian and Syrian hamster IgG monoclonal antibodies according to their reactivity with a panel of mouse anti-hamster IgG mAbs. A table of the hamster IgG groups, Reactivity of Mouse Anti-Hamster Ig mAbs, may be viewed at http://www.bdbiosciences.com/documents/hamster_chart_11x17.pdf.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
6. An isotype control should be used at the same concentration as the antibody of interest.

References

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Takeda K, Oshima H, Hayakawa Y, et al. CD27-mediated activation of murine NK cells. *J Immunol*. 2000; 164(4):1741-1745. (Biology)

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