

Technical Data Sheet

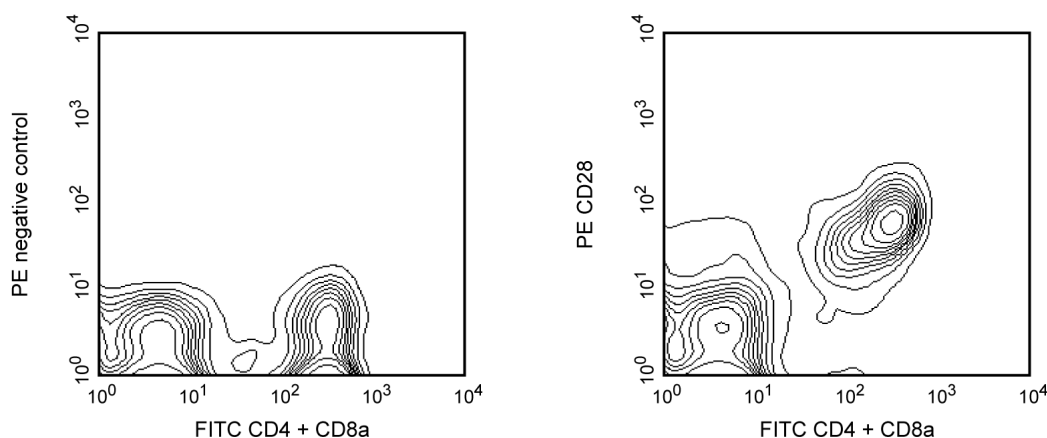
PE Hamster Anti-Mouse CD28

Product Information

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|-------------------------|---|
| Material Number: | 561789 |
| Size: | 25 µg |
| Concentration: | 0.2 mg/ml |
| Clone: | 37.51 |
| Immunogen: | Mouse EL-4 (T-cell lymphoma) Cells |
| Isotype: | Syrian Hamster IgG2, λ1 |
| Reactivity: | QC Testing: Mouse |
| Storage Buffer: | Aqueous buffered solution containing ≤0.09% sodium azide. |

Description

The 37.51 antibody reacts with CD28, which is expressed on most thymocytes, at low density on nearly all CD4+ and CD8+ peripheral T cells, and at even lower density on NK cells. The expression of CD28, in splenocytes and thymocytes, has been reported to increase after activation. CD28 transcripts are found in mast cells, and cell-surface expression of CD28 is induced upon maturation or activation of mast cells. It has been reported that CD28 is not expressed on some populations of intraepithelial T lymphocytes. CD28 is a costimulatory receptor; its ligands include CD80 (B7-1) and CD86 (B7-2). The 37.51 mAb augments proliferation and cytokine production by activated T and NK cells and can provide a costimulatory signal for CTL induction. There is considerable evidence that CD28 is a costimulatory receptor involved in many, but not all, T cell-dependent immune responses.



Two-color analysis of CD28 expression on splenic T lymphocytes. After pre-incubation with Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™; Cat. No. 553141), BALB/c splenocytes were simultaneously stained with FITC Rat Anti-Mouse CD4 (Cat. No. 553046) and FITC Rat Anti-Mouse CD8a (Cat. No. 553030) in addition to staining with PE Hamster Anti-Mouse CD28 (right panel). Flow cytometry was performed on a BD FACScan™ 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 R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Application

Flow cytometry

Tested During Development

Recommended Assay Procedure:

Flow Cytometry: Since this antigen is expressed at low density on resting peripheral T lymphocytes, for flow cytometry of cell suspensions from peripheral lymphoid tissues, it is recommended that multicolor staining be performed to identify T lymphocytes and/or NK cells and that purified anti-mouse CD16/CD32 mAb 2.4G2 [Mouse BD Fc Block™] (Cat. No. 553141) be used.

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Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|----------------|--|-----------|--------|
| 553965 | PE Hamster IgG2, λ 1 Isotype Control | 0.1 mg | Ha4/8 |
| 554714 | BD Cytofix/Cytoperm™ Fixation/Permeabilization Kit | 250 tests | (none) |
| 553141 | Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™) | 0.1 mg | 2.4G2 |
| 553046 | FITC Rat Anti-Mouse CD4 | 0.1 mg | RM4-5 |
| 553030 | FITC Rat Anti-Mouse CD8a | 0.1 mg | 53-6.7 |

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. 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/pharmingen/hamster_chart_11x17.pdf.
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. 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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