

Technical Data Sheet

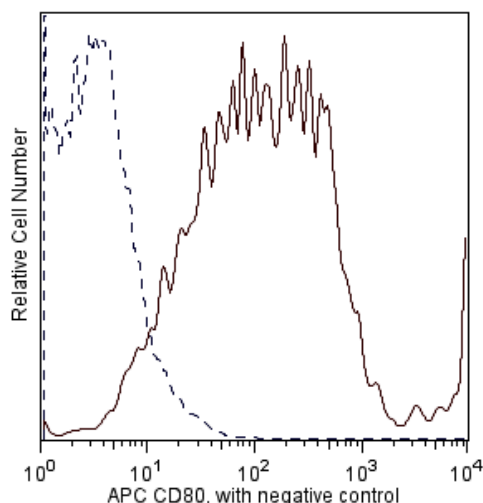
APC Hamster anti-Mouse CD80

Product Information

| | |
|-------------------------|--|
| Material Number: | 560016 |
| Alternate Name: | B7-1 |
| Size: | 0.1 mg |
| Concentration: | 0.2 mg/ml |
| Clone: | 16-10A1 |
| Immunogen: | Mouse CD80 (B7) Transfected Cell Line |
| Isotype: | Armenian Hamster IgG2, κ |
| Reactivity: | QC Testing: Mouse Reported: Dog |
| Storage Buffer: | Aqueous buffered solution containing $\leq 0.09\%$ sodium azide. |

Description

The 16-10A1 antibody reacts with CD80 (B7-1). This member of the Ig superfamily, along with CD86 (B7-2), participates in T-cell co-stimulation via interactions with CD28 and CD152 (CTLA-4). CD80 has been reported to be constitutively expressed on dendritic cells, monocytes, and peritoneal macrophages; and it is inducible on B cells by various means, including activation by LPS, IL-4, and the cross-linking of surface Ig. Expression of CD80 has been reported to be greatly enhanced on splenic B cells following activation by LPS, with peak expression occurring between 48 and 72 hours. It has been reported that the activation of purified B cells with LPS can induce CD80 expression in as few as 18 hours. The 16-10A1 antibody has been reported to block binding of CTLA-4 Ig to CD80 and to block T-cell activation by Con A-elicited peritoneal exudate cells and CD80-transfected cell lines. However, 16-10A1 antibody alone is not able to block T-cell activation by antigen-presenting cells. CD86 (B7-2) is an alternate ligand for CD28 and CD152 (CTLA-4). Preliminary reports indicate that the 16-10A1 mAb may block the binding of rat anti-CD80 mAb clone 1G10 (Cat. No. 553368). In addition, it has been reported that the 16-10A1 antibody may cross-react with an activation antigen expressed on IFN- γ -activated alveolar macrophages of the dog.



Flow cytometric analysis of APC-conjugated anti-mouse CD80 on activated and resting mouse splenocytes.
Freshly isolated (dashed line) or 72-hour LPS-stimulated BALB/c splenocytes (solid line) were pretreated with Mouse BD Fc Block™ purified anti-mouse CD16/CD32 mAb 2.4G2 (Cat. No. 553141) and stained with APC-conjugated 16-10A1 mAb (Cat No. 560016). Flow cytometry was performed on a BD FACSCalibur™ System and the histograms were derived from the gated events based on light scattering characteristics of viable splenocytes.

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 to APC under optimum conditions, and unconjugated antibody and free APC were removed.

Application Notes

Application

Flow cytometry

Routinely Tested

Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|----------------|--|--------|-------|
| 553141 | Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™) | 0.1 mg | 2.4G2 |

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| United States 877.232.8995 | Canada 888.268.5430 | Europe 32.53.720.550 | Japan 0120.8555.90 | Asia Pacific 65.6861.0633 | Latin America/Caribbean 0800.771.7157 |
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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. 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.
3. This APC-conjugated reagent can be used in any flow cytometer equipped with a dye, HeNe, or red diode laser.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
5. Please refer to www.bdbiosciences.com/pharming/protocols for technical protocols.

References

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Herold KC, Vezys V, Koons A, Lenschow D, Thompson C, Bluestone JA. CD28/B7 costimulation regulates autoimmune diabetes induced with multiple low doses of streptozotocin. *J Immunol*. 1997; 158(2):984-991. (Biology: Immunohistochemistry, In vivo exacerbation)

Razi-Wolf Z, Freeman GJ, Galvin F, Benacerraf B, Nadler L, Reiser H. Expression and function of the murine B7 antigen, the major costimulatory molecule expressed by peritoneal exudate cells. *Proc Natl Acad Sci U S A*. 1992; 89(9):4210-4214. (Immunogen: Blocking, Immunoprecipitation)

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