Technical Data Sheet

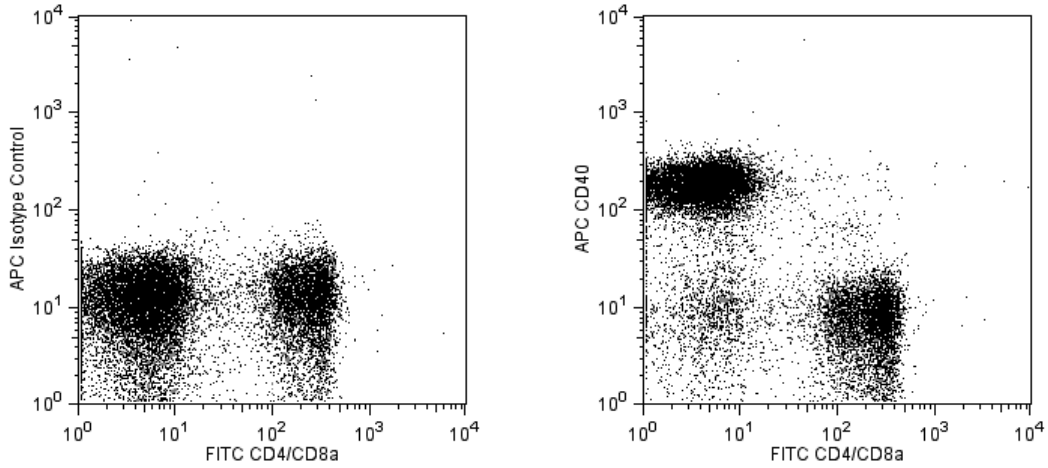
APC Rat anti-Mouse CD40

Product Information

Material Number:	**558695**
Size:	0.1 mg
Concentration:	0.2 mg/ml
Clone:	3/23
Immunogen:	Mouse CD40 Recombinant Protein
Isotype:	Rat (LOU) IgG2a, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 3/23 clone reacts with CD40, a 40-50 kDa glycoprotein expressed on B lymphocytes and other antigen-presenting cells. CD40 has been reported to be transiently expressed on activated CD4+ and CD8+ T cells and in some mouse strains, the 3/23 mAb has been reported to react with 5-10% of T lymphocytes in adult mouse, but not neonatal, spleen. CD40 plays a key role in B-cell growth and differentiation where interactions of CD40 with its ligand, CD154, are involved in the initiation, effector, and memory stages of cell-mediated immune responses. In addition, CD40 has been reported to be involved with the triggering of NK cells and NK-T cells. Ligation of CD40 with the 3/23 antibody has been reported to induce splenic B cells to express the costimulatory molecule CD86 (B7-2). In addition, although the 3/23 antibody by itself is a weak B-cell mitogen, it has been reported to synergize markedly with mitogenic anti-IgM, anti-IgD mAb or IL-4 to promote B-cell proliferation.



Flow cytometric analysis of APC-conjugated anti-mouse CD40 on mouse splenocytes. *Murine splenocytes were stained with FITC conjugated anti-mouse CD4/CD8a (clones RM4-5 /53-6.7 respectively; Cat. No. 553046/553030) and either APC anti-CD40 (clone 3/23, Cat. No. 558695, right panel) or an APC rat IgG2a isotype control (Cat. No. 553932, left panel) and analyzed by flow cytometry. Flow cytometry was performed on a BD FACSCalibur™ System and the dot plots 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 polyclonal antibody was purified from antiserum 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
553932	APC Rat IgG2a κ Isotype Control	0.1 mg	R35-95

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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. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
4. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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