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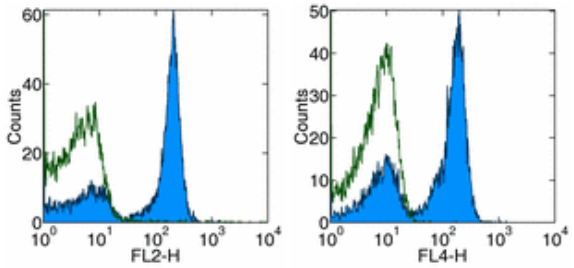
Product Information

Contents: Affinity Purified anti-mouse CD40
Catalog Number: 14-0401
Sizes: 50 ug, 100 ug, 500 ug, 1 mg
Formulation: Phosphate buffer pH 7.2, 150 mM NaCl, 0.09% NaN_3
Storage Conditions: Store at 4°C. Avoid repeated freeze/thaw cycles.
Clone: 1C10
Isotype: Rat IgG2a, κ



Surface staining of mouse splenocytes with anti-mouse CD40 (1C10) PE (left), and APC (right). Appropriate isotype controls were used (open histogram). Total viable cells were used for analysis.

Available Formats of This Product				
Cat. No.	Format	Excite (nm)	Emit (nm)	Reported Applications
12-0401	PE anti-mouse CD40	488	575	FC
13-0401	Biotin anti-mouse CD40	N/A	N/A	FC
14-0401	Affinity Purified anti-mouse CD40	N/A	N/A	FA FC IP
15-0401	PE-Cy5 anti-mouse CD40	488	670	FC
16-0401	Functional Grade* Purified anti-mouse CD40	N/A	N/A	FC
17-0401	APC anti-mouse CD40	633	660	FC

*Functional Grade™ (FG™): Azide-free, sterile-filtered, and endotoxin < 0.001 ng/µg.
Purified: Contains azide, not sterile-filtered, and not endotoxin tested.

Description

The 1C10 monoclonal antibody reacts with mouse CD40, a 45-50 kDa type I transmembrane glycoprotein. CD40 is a member of the TNFR family and is expressed by mouse B lymphocytes, follicular dendritic cells, thymic epithelium, and a subset of peripheral T cells. CD40 regulates B cell development/maturation by inducing Ig isotype switching and in combination with other signals such as IL-4, protects B cells from surface Ig-induced apoptosis and promotes proliferation. Interaction of CD40 with CD154 (gp39), its ligand on T cells, is important in T-B cell crosstalk and plays a role in costimulation and immune regulation.

Usage

For research use only, not for diagnostic or therapeutic use. The 1C10 antibody has been reported for use in flow cytometric analysis, and immunoprecipitation. It has also been reported in *in vitro* activation of B cells. (Please use Functional Grade purified 1C10, cat. 16-0401, in functional assays.)

Applications Tested

The 1C10 antibody has been tested by flow cytometric analysis of mouse splenocyte suspensions. This can be used at less than or equal to 1 µg per million cells in a 100 µl total staining volume. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Related Products

Cat. 12-0401 PE anti-mouse CD40 (clone 1C10)
Cat. 13-0401 Biotin anti-mouse CD40 (clone 1C10)
Cat. 15-0401 PE-Cy5 anti-mouse CD40 (clone 1C10)
Cat. 16-0401 Functional Grade Purified anti-mouse CD40 (clone 1C10)

Cat. 17-0401 APC anti-mouse CD40 (clone 1C10)
Cat. 11-0402 FITC anti-mouse CD40 (clone HM40-3)
Cat. 13-0402 Biotin anti-mouse CD40 (clone HM40-3)
Cat. 14-0402 Affinity Purified anti-mouse CD40 (clone HM40-3)
Cat. 16-0402 Functional Grade Purified anti-mouse CD40 (clone HM40-3)
Cat. 11-4317 Streptavidin-FITC (Fluorescein isothiocyanate)
Cat. 12-4317 Streptavidin-PE (Phycoerythrin)
Cat. 17-4317 Streptavidin Allophycocyanin (SA-APC)
Cat. 14-4321 Affinity Purified Rat IgG2a Isotype Control
Cat. 11-4811 FITC Anti-Rat IgG
Cat. 13-4813 Biotin Anti-Rat IgG (clone Polyclonal)

References

Ferlin, W. G., T. von der Weid, et al. (1998). "The induction of a protective response in Leishmania major-infected BALB/c mice with anti-CD40 mAb." Eur J Immunol 28(2): 525-31.

Ferlin, W. G., E. Severinson, et al. (1996). "CD40 signaling induces interleukin-4-independent IgE switching in vivo." Eur J Immunol 26(12): 2911-5.

Heath, A. W., W. W. Wu, et al. (1994). "Monoclonal antibodies to murine CD40 define two distinct functional epitopes." Eur J Immunol 24(8): 1828-34.