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Product Data Sheet

PerCP/Cyanine5.5 anti-human CD40

Catalog # / Size: 2271575 / 25 tests
2271580 / 100 tests

Clone: 5C3

Isotype: Mouse IgG1, κ

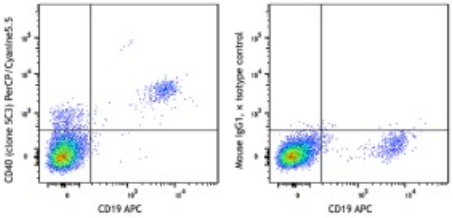
Reactivity: Human, Non-human primate, Other

Preparation: The antibody was purified by affinity chromatography, and conjugated with PerCP/Cyanine5.5 under optimal conditions.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).

Workshop Number: V CD40.4

Concentration: Lot-specific



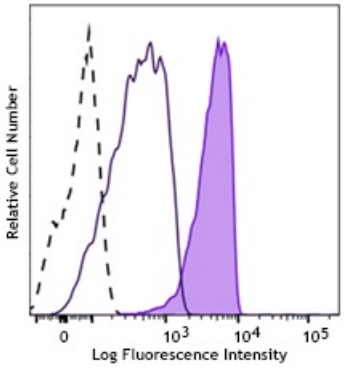
Human peripheral blood lymphocytes stained with CD19 APC and CD40 (clone 5C3) PerCP/Cyanine5.5 (left) or mouse IgG1, κ PerCP/Cyanine5.5 isotype control (right).

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells or 5 µl per 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

* PerCP/Cy5.5 has a maximum absorption of 482 nm and a maximum emission of 690 nm.



Application Notes: Additional reported applications (for the relevant formats) include: costimulation of B cell proliferation1, partial inhibition of CD40 binding to CD40L3, and B cell rescue from apoptosis1. The LEAF™ purified antibody (Endotoxin <0.1 EU/microg, Azide-Free, 0.2 µm filtered) is recommended for functional assays.

Application References:

1. Schlossman SF, *et al.* 1995. ed. Leukocyte Typing V:White Cell Differentiation Antigens. New York:Oxford University Press.
2. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
3. Pound JD, *et al*. 1999. *Int. Immunol*. 11:11.
4. Shey MS, *et al.* 2014. *J Immunol.* 192:4833. PubMed
5. Sondergaard JN, *et al.* 2014. *Mol Immunol.* 59:180. PubMed
6. Saiki O, *et al.* 1995. *J Clin. Invest.* 2: 510-4 (Costim)

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Description: CD40 is a 48 kD type I glycoprotein also known as BP50. It is a member of the TNFR superfamily primarily expressed on B cells, macrophages, follicular dendritic cells, endothelial cells, fibroblasts, and at low levels on plasma cells. CD40 has been reported to be involved in B cell differentiation, costimulation, isotype class-switching, and protection of B cells from apoptosis. Additionally, CD40 is important for T cell-B cell interactions. The ligand of CD40 is CD154 (CD40 ligand). The 5C3 antibody has been reported to promote B cell proliferation in the presence of anti-IgM, IL-4 or PMA, partially blocking CD40 binding to CD40L, and B cells rescue from apoptosis.

Antigen References:

1. Banchereau J, *et al.* 1994. *Annu. Rev. Immunol.* 12:881.
2. Foy T, *et al.* 1996. *Annu. Rev. Immunol.* 14:591.

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