

PE/Dazzle™ 594 anti-human CD40 Antibody

Catalog# / Size	334341 / 25 tests 334342 / 100 tests
Clone	5C3
Regulatory Status	RUO
Workshop	V CD40.4
Other Names	BP50, TNFRSF5
Isotype	Mouse IgG1, κ
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.

Product Details

Verified Reactivity	Human, Cynomolgus, Rhesus
Reported Reactivity	Baboon, Chimpanzee, Squirrel Monkey
Antibody Type	Monoclonal
Host Species	Mouse
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with PE/Dazzle™ 594 under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
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 in 100 µl staining volume or 5 µl per 100 µl of whole blood. * PE/Dazzle™ 594 has a maximum excitation of 566 nm and a maximum emission of 610 nm.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	Additional reported applications (for the relevant formats) include: costimulation of B cell proliferation ¹ , partial inhibition of CD40 binding to CD40L ³ , and B cell rescue from apoptosis ¹ . The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays.
Application References	1. Schlossman SF, <i>et al.</i> 1995. ed. Leukocyte Typing V:White Cell Differentiation Antigens. New York:Oxford University Press. 2. Yoshino N, <i>et al.</i> 2000. <i>Exp. Anim. (Tokyo)</i> 49:97. (FC) 3. Pound JD, <i>et al.</i> 1999. <i>Int. Immunol.</i> 11:11. 4. Shey MS, <i>et al.</i> 2014. <i>J Immunol.</i> 192:4833. PubMed 5. Sondergaard JN, <i>et al.</i> 2014. <i>Mol Immunol.</i> 59:180. PubMed
(PubMed link indicates BioLegend citation)	

6. Saiki O, et al. 1995. *J Clin. Invest.* 2: 510-4 (Costim)

Product Citations

1. Fosdick MG, et al. 2022. *Sci Rep.* 12:13506. [PubMed](#)

RRID

AB_2566456 (BioLegend Cat. No. 334341)

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Antigen Details

Structure	TNFR superfamily, type I glycoprotein, 48 kD
Distribution	B cells, macrophages, follicular dendritic cells, endothelial cells, fibroblasts
Function	B cell differentiation, costimulation, isotype class-switching, rescues B cells from apoptosis
Ligand/Receptor	CD154 (CD40 ligand)
Cell Type	B cells, Dendritic cells, Endothelial cells, Fibroblasts, Macrophages
Biology Area	Cell Biology, Costimulatory Molecules, Immunology, Neuroscience, Neuroscience Cell Markers
Molecular Family	CD Molecules
Antigen References	1. Banchereau J, et al. 1994. <i>Annu. Rev. Immunol.</i> 12:881. 2. Foy T, et al. 1996. <i>Annu. Rev. Immunol.</i> 14:591.
Gene ID	958

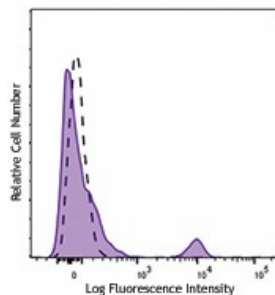
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

Alexa Fluor® 488 anti-human CD40, Purified anti-human CD40, FITC anti-human CD40, PE anti-human CD40, APC anti-human CD40, Alexa Fluor® 647 anti-human CD40, PerCP/Cyanine5.5 anti-human CD40, Pacific Blue™ anti-human CD40, PE/Cyanine7 anti-human CD40, APC/Cyanine7 anti-human CD40, Alexa Fluor® 700 anti-human CD40, Purified anti-human CD40 (Maxpar® Ready), Brilliant Violet 510™ anti-human CD40, Brilliant Violet 421™ anti-human CD40, Brilliant Violet 711™ anti-human CD40, Brilliant Violet 605™ anti-human CD40, Brilliant Violet 650™ anti-human CD40, Brilliant Violet 785™ anti-human CD40, PE/Dazzle™ 594 anti-human CD40, Biotin anti-human CD40, APC/Fire™ 750 anti-human CD40, TotalSeq™-A0031 anti-human CD40, TotalSeq™-C0031 anti-human CD40, Ultra-LEAF™ Purified anti-human CD40, TotalSeq™-B0031 anti-human CD40, TotalSeq™-D0031 anti-human CD40, PE/Fire™ 810 anti-human CD40

Product Data



Human peripheral blood lymphocytes were stained with CD40 (clone 5C3) PE/Dazzle™ 594 (filled histogram) or mouse IgG1, κ PE/Dazzle™ 594 isotype control (open histogram).

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