BioLegend
The path to legendary discovery™

Product Data Sheet

Alexa Fluor® 488 anti-human CD40

Catalog # / Size: 334317 / 25 tests
334318 / 100 tests

Clone: 5C3

Isotype: Mouse IgG1, κ

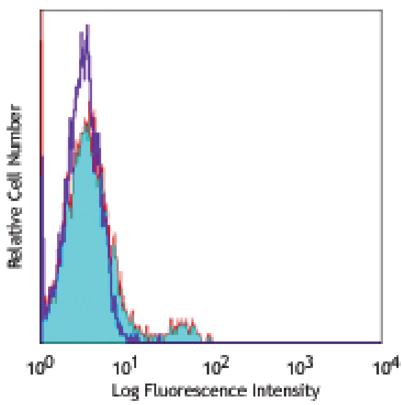
Workshop Number: V CD40.4

Reactivity: Human, **Cross-Reactivity:** Baboon, Chimpanzee, Cynomolgus Monkey, Rhesus, Squirrel Monkey

Preparation: The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 488 under optimal conditions. The solution is free of unconjugated Alexa Fluor® 488.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

Storage: The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**



Human peripheral blood lymphocytes stained with 5C3 Alexa Fluor® 488

Applications:

Applications: FC - *This application has been Quality tested*

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent 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.

* Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633nm / 635nm.
** Alexa Fluor® is a registered trademark of Molecular Probes, Inc. Alexa Fluor® dye antibody conjugates are sold under license from Molecular Probes, Inc. for research use only, except for use in combination with microarrays and high content screening, and are covered by pending and issued patents.

Application Notes: Additional reported applications (for the relevant formats) include: costimulation of B cell proliferation[1], partial inhibition of CD40 binding to CD40L, 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, *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)

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.

Related Products:

Product	Clone	Application
Alexa Fluor® 647 Mouse IgG1, κ Isotype Ctrl (FC)	MOPC-21	FC, IF
Cell Staining Buffer		FC, ICC, ICFC
RBC Lysis Buffer (10X)		FC, ICFC
Human TruStain FcX™ (Fc Receptor Blocking Solution)		FC, ICC, ICFC

BioLegend Inc., 9727 Pacific Heights Blvd, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587