

Product Data Sheet

Pacific Blue™ anti-human CD40

Catalog # / Size: 334319 / 25 µg
334320 / 100 µg

Clone: 5C3

Isotype: Mouse IgG1, κ

Workshop Number: V CD40.4

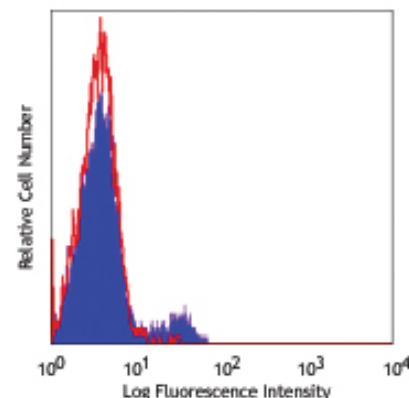
Reactivity: Human, **Cross-Reactivity:** Baboon, Chimpanzee, Cynomolgus Monkey, Rhesus, Squirrel Monkey

Preparation: The antibody was purified by affinity chromatography, and conjugated with Pacific Blue™ under optimal conditions. The solution is free of unconjugated Pacific Blue™.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Concentration: 0.5 mg/ml

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 Pacific Blue™

Applications:

Applications: FC - 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 ≤1.0µg per million cells in 100 µl volume or 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

* Pacific Blue™ has a maximum emission of 455 nm when it is excited at 405 nm. Prior to using Pacific Blue™ conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.

** Pacific Blue™ is a registered trademark of Molecular Probes, Inc. Pacific Blue™ 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 proliferation¹, partial inhibition of CD40 binding to CD40L, and B cell rescue from apoptosis¹. 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
Pacific Blue™ Mouse IgG1, κ Isotype Ctrl
Cell Staining Buffer
RBC Lysis Buffer (10X)
Human TruStain FcX™ (Fc Receptor Blocking Solution)

Clone
MOPC-21

Application
FC, ICFC
FC, ICC, ICFC
FC, ICFC
FC, ICC, ICFC



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