

**FITC anti-human CD40**

**Catalog # / Size:** 2271530 / 100 tests  
2271525 / 25 tests

**Clone:** 5C3

**Isotype:** Mouse IgG1,  $\kappa$

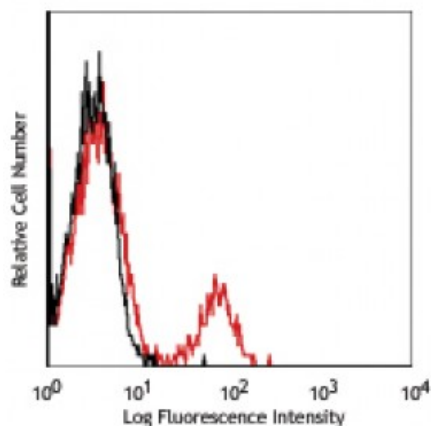
**Reactivity:** Human

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

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

**Workshop Number:** V CD40.4

**Concentration:** Lot-specific



Human peripheral blood lymphocytes stained with 5C3 FITC

**Applications:**

**Applications:** Flow Cytometry

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. **Test size products are transitioning from 20 microL to 5 microL per test.** Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 microL staining volume or per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

**Application Notes:** Additional reported applications (for the relevant formats) include: costimulation of B cell proliferation<sup>1</sup>, partial inhibition of CD40 binding to CD40L<sup>3</sup>, and B cell rescue from apoptosis<sup>1</sup>. The LEAF™ purified antibody (Endotoxin <0.1 EU/microg, Azide-Free, 0.2  $\mu$ m 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. (Block)

**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.