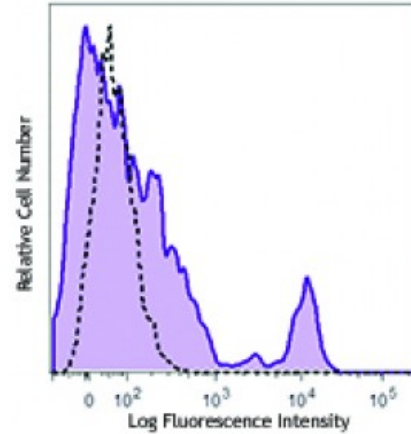


**Brilliant Violet 711™ anti-human CD40**

**Catalog # / Size:** 2271670 / 100 tests  
**Clone:** 5C3  
**Isotype:** Mouse IgG1, κ  
**Reactivity:** Human  
**Preparation:** The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 711™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 711™ and unconjugated antibody.  
**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 were stained with CD40 (clone 5C3) Brilliant Violet 711™ (filled histogram) or mouse IgG1, κ Brilliant Violet 711™ isotype control (open histogram).

**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 microL per million cells or 5 microL per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Brilliant Violet 711™ excites at 405 nm and emits at 711 nm. The bandpass filter 710/50 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. **Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel.** Refer to your instrument manual or manufacturer for support. Brilliant Violet 711™ is a trademark of Sirigen Group Ltd.

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**Application Notes:** Additional reported applications (for the relevant formats) include: costimulation of B cell proliferation<sup>1</sup>, partial inhibition of CD40 binding to CD40L3, and B cell rescue from apoptosis<sup>1</sup>. The LEAF™ purified antibody (Endotoxin <0.1 EU/microg, Azide-Free, 0.2 μm filtered) is recommended for functional assays.

**Application References:**

- Schlossman SF, *et al.* 1995. ed. Leukocyte Typing V:White Cell Differentiation Antigens. New York:Oxford University Press.
- Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
- Pound JD, *et al.* 1999. *Int. Immunol.* 11:11. (Block)

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