

Brilliant Violet 605™ anti-human CD40

Catalog # / Size: 2271675 / 25 tests
2271680 / 100 tests

Clone: 5C3

Isotype: Mouse IgG1, κ

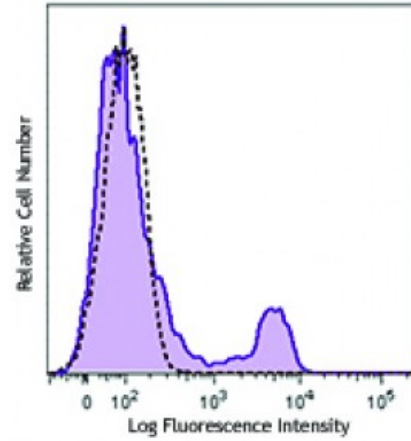
Reactivity: Human

Preparation: The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 605™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 605™ 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 stained with CD40 (clone 5C3) Brilliant Violet 605™ (filled histogram) or mouse IgG1, κ Brilliant Violet 605™ 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 605™ excites at 405 nm and emits at 603 nm. The bandpass filter 610/20 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 605™ is a trademark of Sirigen Group Ltd.

Application Notes: Additional reported applications (for the relevant formats) include: costimulation of B cell proliferation¹, partial inhibition of CD40 binding to CD40L3, and B cell rescue from apoptosis¹. 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)

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.