

# CD40 Monoclonal Antibody (5C3), Super Bright™ 702, eBioscience™

| Product Details             |  |
|-----------------------------|--|
| Size                        | 100 Tests  |
| Species Reactivity          | Human  |
| Host/Isotype                | Mouse / IgG1, kappa  |
| Recommended Isotype Control | Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), Super Bright™ 702, eBioscience™ |
| Class                       | Monoclonal   |
| Type                        | Antibody   |
| Clone                       | 5C3  |
| Conjugate                   | Super Bright™ 702  |
| Form                        | Liquid   |
| Concentration               | 5 µL/Test  |
| Purification                | Affinity chromatography  |
| Storage buffer              | PBS, pH 7.2, with BSA  |
| Contains                    | 0.09% sodium azide   |
| Storage conditions          | 4° C, store in dark, DO NOT FREEZE!  |
| RRID                        | AB_2717145   |

| Applications          | Tested Dilution      | Publications  |
|-----------------------|----------------------|---------------|
| Flow Cytometry (Flow) | 5 µL (0.125 µg)/test | 1 Publication |

## Product Specific Information

**Description:** The 5C3 monoclonal antibody reacts with human CD40, a 45-50 kDa type I transmembrane glycoprotein. CD40 is a member of the TNFR family and is expressed by B lymphocytes, follicular dendritic cells, thymic epithelium, and a subset of peripheral T cells. CD40 regulates B cell development and maturation by inducing Ig isotype-switching and in combination with other signals such as IL-4, protects B cells from surface Ig-induced apoptosis and promotes proliferation. Interaction of CD40 with CD154 (gp39), its ligand on T cells, is important in T-B cell crosstalk and plays a role in costimulation and immune regulation. 5C3 is reported to be used for activation of B cells in in vitro functional assays.

**Applications Reported:** This 5C3 antibody has been reported for use in flow cytometric analysis.

**Applications Tested:** This 5C3 antibody has been tested by flow cytometric analysis of normal human peripheral blood cells. This may be used at less than or equal to 5 µL (0.125) µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Super Bright 702 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 702 nm. We recommend using a 710/50 bandpass filter. Please make sure that your instrument is capable of detecting this fluorochrome.

When using two or more Super Bright dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright Complete Staining Buffer (Product # SB-4401) to minimize any non-specific polymer interactions. Please refer to the datasheet for

Super Bright Staining Buffer for more information.

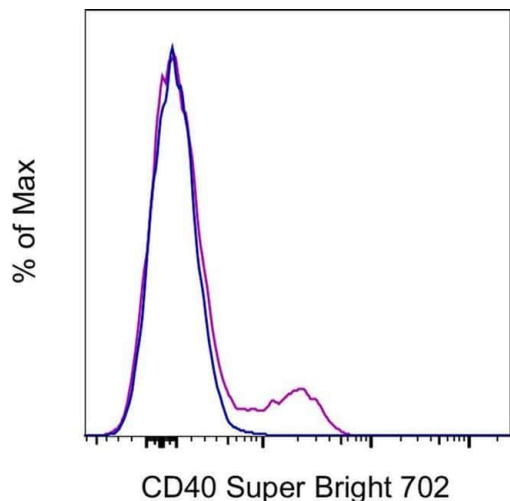
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222) (100  $\mu$ L of cell sample + 100  $\mu$ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 405 nm; Emission: 702 nm; Laser: Violet Laser

Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

## Product Images For CD40 Monoclonal Antibody (5C3), Super Bright™ 702, eBioscience™



### CD40 Antibody (67-0409-42) in Flow

Staining of normal human peripheral blood cells with Mouse IgG1 K Isotype Control, Super Bright 702 (Product # 67-4714-82) (blue histogram) or CD40 Monoclonal Antibody, Super Bright 702 (purple histogram). Cells in the lymphocyte gate were used for analysis.

## 1 Reference

### Flow Cytometry (1)

Immunology and cell biology

#### Activated monocytes and markers of inflammation in newly diagnosed multiple sclerosis.

"Published figure using CD40 monoclonal antibody (Product # 67-0409-42) in Flow Cytometry"

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Year  
2020

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