

# CD40 Monoclonal Antibody (1C10), Super Bright™ 600, eBioscience™

| Product Details             |  |
|-----------------------------|--|
| Size                        | 100 µg   |
| Species Reactivity          | Mouse  |
| Host/Isotype                | Rat / IgG2a, kappa   |
| Recommended Isotype Control | Rat IgG2a kappa Isotype Control (eBR2a), Super Bright™ 600, eBioscience™ |
| Class                       | Monoclonal   |
| Type                        | Antibody   |
| Clone                       | 1C10   |
| Conjugate                   | Super Bright™ 600  |
| Form                        | Liquid   |
| Concentration               | 0.2 mg/mL  |
| 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_2717039   |

| Applications          | Tested Dilution | Publications   |
|-----------------------|-----------------|----------------|
| Flow Cytometry (Flow) | 0.5 µg/test     | 3 Publications |

## Product Specific Information

**Description:** The 1C10 monoclonal antibody reacts with mouse CD40, a 45-50 kDa type I transmembrane glycoprotein. CD40 is a member of the TNFR family and is expressed by mouse B lymphocytes, follicular dendritic cells, thymic epithelium, and a subset of peripheral T cells. CD40 regulates B cell development/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.

The monoclonal antibody 1C10 is reported to have agonistic activity in vitro and in vivo.

**Applications Reported:** The 1C10 antibody has been reported for use in flow cytometric analysis.

**Applications Tested:** The 1C10 antibody has been tested by flow cytometric analysis of mouse splenocytes. This can be used at less than or equal to 0.5 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 600 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 600 nm. We recommend using a 610/20 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.

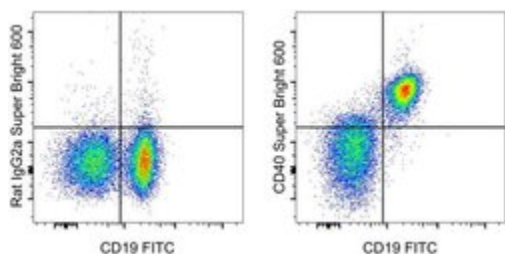
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

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: 600 nm; Laser: Violet Laser

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

## Product Images For CD40 Monoclonal Antibody (1C10), Super Bright™ 600, eBioscience™



### CD40 Antibody (63-0401-82) in Flow

Staining of BALB/c splenocytes with Anti-Mouse CD19 FITC (Product # 11-0193) and 0.25  $\mu$ g of Rat IgG2a K Isotype Control Super Bright 600 (Product # 63-4321) (left) or 0.25  $\mu$ g of Anti-Mouse CD40 Super Bright 600 (Product # 63-0401) (right). Total viable cells were used for analysis.

[View more figures on thermofisher.com](#)

## 3 References

### Flow Cytometry (3)

Nature communications

#### Senolytics prevent mt-DNA-induced inflammation and promote the survival of aged organs following transplantation.

"Published figure using CD40 monoclonal antibody (Product # 63-0401-82) in Flow Cytometry"

Authors: Iske J, Seyda M, Heinbokel T, Maenosono R, Minami K, Nian Y, Quante M, Falk CS, Azuma H, Martin F, Passos JF, Niemann CU, Tchkonja T, Kirkland JL, Elkhail A, Tullius SG

Species  
Not Applicable

Dilution  
Not Cited

Year  
2020

The Journal of clinical investigation

#### cGAS/STING axis mediates a topoisomerase II inhibitor-induced tumor immunogenicity.

"Published figure using CD40 monoclonal antibody (Product # 63-0401-82) in Flow Cytometry"

Authors: Wang Z, Chen J, Hu J, Zhang H, Xu F, He W, Wang X, Li M, Lu W, Zeng G, Zhou P, Huang P, Chen S, Li W, Xia LP, Xia X

Species  
Not Applicable

Dilution  
Not Cited

Year  
2019

[View more Flow references on thermofisher.com](#)

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization. Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.