

CD40 Monoclonal Antibody (5C3), Super Bright™ 645, eBioscience™

Product Details	
Size	25 Tests
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), Super Bright™ 645, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	5C3
Conjugate	Super Bright™ 645
Excitation/Emission Max	414/645 nm
Form	Liquid
Concentration	5 µL/Test
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2717094

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5 µL (0.125 µg)/test	2 Publications

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: The 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 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Super Bright 645 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 645 nm. We recommend using a 660/20 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.

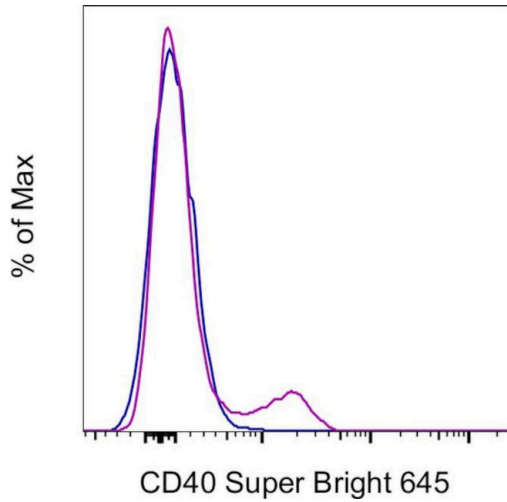
Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222) (100 µL of cell sample + 100 µL of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations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

clone specific performance should be determined empirically.

Excitation: 405 nm; Emission: 645 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™ 645, eBioscience™



CD40 Antibody (64-0409-41) in Flow

Staining of normal human peripheral blood cells with Mouse IgG1 K Isotype Control Super Bright 645 (Product # 64-4714-82) (blue histogram) or CD40 Monoclonal Antibody, Super Bright 645 (purple histogram). Cells in the lymphocyte gate were used for analysis.

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

2 References

Flow Cytometry (2)

Reproductive biology and endocrinology : RB&E

Recombinant human IL-37 inhibited endometriosis development in a mouse model through increasing Th1/Th2 ratio by inducing the maturation of dendritic cells.

"Published figure using CD40 monoclonal antibody (Product # 64-0409-42) in Flow Cytometry"

Authors: Li L,Liao Z,Ye M,Jiang J

Year
2021

Immunology and cell biology

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

"Published figure using CD40 monoclonal antibody (Product # 64-0409-42) in Flow Cytometry"

Authors: Carstensen M,Christensen T,Stilund M,Møller HJ,Petersen EL,Petersen T

Year
2020

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.