

# CD40 Monoclonal Antibody (1C10), PE-Cyanine5, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Published Species	Mouse
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), PE-Cyanine5, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	1C10
Conjugate	PE-Cyanine5
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.1% gelatin
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_468747

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.25 µg/test	26 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 0.25 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.

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

**Fixation:** Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 µL cell sample + 100 µL IC Fixation Buffer) or 1-step Fix /Lyse Solution (cat. 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.

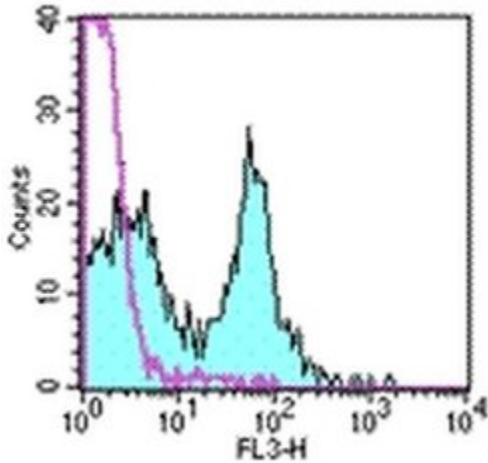
Excitation: 488-561 nm; Emission: 667 nm; Laser: Blue Laser, Green Laser, Yellow-Green Laser.

Filtration: 0.2 µm post-manufacturing filtered.

### Product Images For CD40 Monoclonal Antibody (1C10), PE-Cyanine5, eBioscience™

#### CD40 Antibody (15-0401-82) in Flow

Staining of C57Bl/6 splenocytes with staining buffer (autofluorescence) (open histogram) or 0.125 µg Anti-Mouse CD40 PE-Cyanine5 (filled histogram). Total cells were used for analysis.



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## Flow Cytometry (26)

Nature communications

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

"Published figure using CD40 monoclonal antibody (Product # 15-0401-82) 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

International journal of oncology

### Silencing IDO2 in dendritic cells: A novel strategy to strengthen cancer immunotherapy in a murine lung cancer model.

"15-0401-82 was used in Flow Cytometry to provide evidence that the silencing of the tryptophan rate, limiting metabolic enzyme, IDO2, has the potential to enhance the efficacy of DC-based cancer immunotherapy."

Authors: Liu Y, Xu P, Liu H, Fang C, Guo H, Chen X, Tan M, Zhang Y, Min W

**Species**  
Mouse

**Dilution**  
Not Cited

**Year**  
2020

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

## More applications with references on thermofisher.com

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