

CD40 Monoclonal Antibody (1C10), PE, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Published Species	Mouse, Human
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), PE, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	1C10
Conjugate	PE
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_465649

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.5 µg/test	64 Publications
Neutralization (Neu)	-	1 Publication
Inhibition Assays (IA)	-	1 Publication

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 be agonistic in vitro and in vivo.

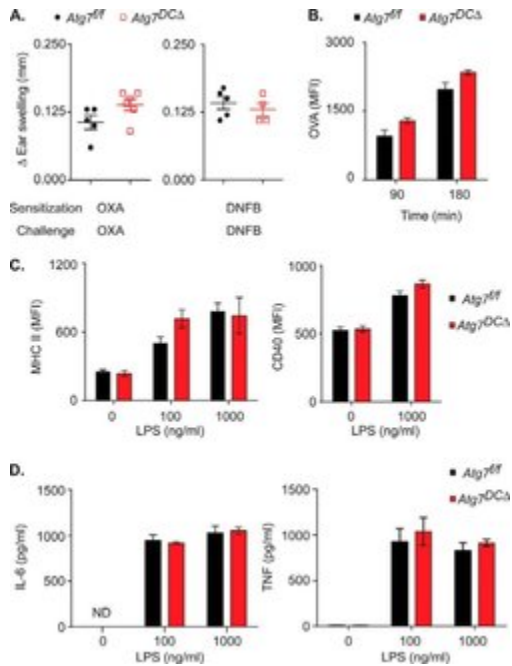
Applications Reported: The 1C10 antibody has been reported for use in flow cytometric analysis.

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

Excitation: 488-561 nm; **Emission:** 578 nm; **Laser:** Blue Laser, Green Laser, Yellow-Green Laser.

Filtration: 0.2 µm post-manufacturing filtered.

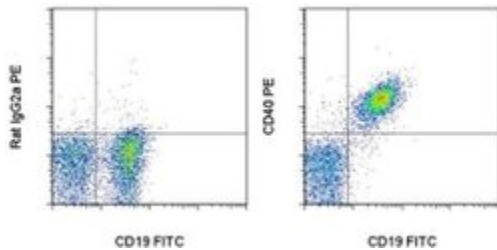
Advanced Verification Data



CD40 Antibody (12-0401-82)

FIGURE 2. Atg7 DC Delta mice had no global defects in DC functions. A, mice were sensitized and challenged after 5-6 days with OXA or DNFB. Ear swelling was measured 24 h after challenge. Each symbol represents one mouse. B-D, functional characterization of BMDCs from Atg7 DC Delta mice. BMDCs were incubated with 25 µg/ml of OVA-Alexa Fluor 488 for 90 or 180 min. Endocytosis was measured by flow cytometry (B). In additional experiments, BMDCs were stimulated with LPS for 24 h; cells were stained for flow cytometry (C), and supernatant was collected for ELISA (D). n = 3-9/group; data are mean ± S.E. No significant differences were detected by Student's t test. MFI , mean fluorescence intensity; ND , not detected. Cell treatment validation info.

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



CD40 Antibody (12-0401-82) in Flow

Staining of BALB/c splenocytes with Anti-Mouse CD19 FITC (Product # 11-0193-82) and 0.25 µg of Rat IgG2a K Isotype Control PE (Product # 12-4321-80) (left) or 0.25 µg of Anti-Mouse CD40 PE (right). Total viable cells were used for analysis.

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Flow Cytometry (64)

Journal for immunotherapy of cancer

Modulation of lactate-lysosome axis in dendritic cells by clotrimazole potentiates antitumor immunity.

"12-0401-82 was used in Flow Cytometry to show that clotrimazole could trigger DC activation via the lactate-lysosome axis to promote antigen cross-presentation and could be used as a potential combination therapy approach to improving the therapeutic efficacy of anti-PD1 immunotherapy."

Authors: Wang Z,Xu F,Hu J,Zhang H,Cui L,Lu W,He W,Wang X,Li M,Zhang H,Xiong W,Xie C,Liu Y,Zhou P,Liu J,Huang P,Qin XF,Xia X

Species
Mouse

Dilution
Not Cited

Year
2021

International journal of molecular medicine

Prostaglandin E2 serves a dual role in regulating the migration of dendritic cells.

"12-0401 was used in Flow cytometry/Cell sorting to elucidate the potential regulatory mechanism of PGE2 on the migration of dendritic cells."

Authors: Diao G,Huang J,Zheng X,Sun X,Tian M,Han J,Guo J

Species
Mouse

Dilution
1:100

Year
2021

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

Neutralization (1)

PloS one

Retinal astrocytes pretreated with NOD2 and TLR2 ligands activate uveitogenic T cells.

"12-0401 was used in Flow cytometry/Cell sorting to investigate the activation of uveitogenic T cells via the pretreatment of retinal astrocytes with NOD2 and TLR2 ligands."

Authors: Jiang G,Sun D,Kaplan HJ,Shao H

Species
Mouse

Dilution
Not Cited

Year
2013

Inhibition Assays (1)

PloS one

Retinal astrocytes pretreated with NOD2 and TLR2 ligands activate uveitogenic T cells.

"12-0401 was used in Flow cytometry/Cell sorting to investigate the activation of uveitogenic T cells via the pretreatment of retinal astrocytes with NOD2 and TLR2 ligands."

Authors: Jiang G,Sun D,Kaplan HJ,Shao H

Species
Mouse

Dilution
Not Cited

Year
2013

More applications with references on thermofisher.com

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