

CD40 Monoclonal Antibody (1C10), eBioscience™

Product Details

Size	50 µg
Species Reactivity	Mouse
Published Species	Mouse
Host/Isotype	Rat / IgG2a, kappa
Class	Monoclonal
Type	Antibody
Clone	1C10
Conjugate	Unconjugated
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C
RRID	AB_467223

Applications	Tested Dilution	Publications
Immunohistochemistry (IHC)	-	1 Publication
Immunohistochemistry (Frozen) (IHC (F))	Assay-Dependent	-
Immunocytochemistry (ICC/IF)	-	1 Publication
Flow Cytometry (Flow)	1 µg/test	37 Publications
Immunoprecipitation (IP)	Assay-Dependent	-
Functional Assay (FN)	-	7 Publications
In vitro Assay (IV)	-	2 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: This 1C10 antibody has been reported for use in flow cytometric analysis, immunoprecipitation, and immunohistochemical staining of frozen tissue sections. (Please use Functional Grade purified 1C10, cat. 16-0401, in functional assays.).

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 1 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.

Purity: Greater than 90%, as determined by SDS-PAGE.

Aggregation: Less than 10%, as determined by HPLC.

Filtration: 0.2 µm post-manufacturing filtered.

Immunohistochemistry (1)

Immunity

Regulation of class-switch recombination and plasma cell differentiation by phosphatidylinositol 3-kinase signaling.

"14-0401 was used in Immunohistochemistry to demonstrate that phosphatidylinositol 3-kinase actively suppresses the onset and frequency of Class-switch recombination in primary B cells."

Authors: Omori SA,Cato MH,Anzelon-Mills A,Puri KD,Shapiro-Shelef M,Calame K,Rickert RC

Species
Mouse

Dilution
1:50

Year
2006

Immunocytochemistry (1)

Cell

Detection of rare antigen-presenting cells through T cell-intrinsic meandering motility, mediated by Myo1g.

"14-0401 was used in Immunofluorescence to show that Myo1g-mediated T cell-intrinsic meandering motility search are critical for the detection of rare cognate antigen-presenting cells."

Authors: Gérard A,Patino-Lopez G,Beemiller P,Nambiar R,Ben-Aissa K,Liu Y,Totah FJ,Tyska MJ,Shaw S,Krummel MF

Species
Mouse

Dilution
Not Cited

Year
2014

Flow Cytometry (37)

Nature communications

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

"Published figure using CD40 monoclonal antibody (Product # 14-0401-82) 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,Tchkonia T,Kirkland JL,Elkhal A,Tullius SG

Species
Not Applicable

Dilution
Not Cited

Year
2020

Frontiers in immunology

FcRI -Chain Negatively Modulates Dectin-1 Responses in Dendritic Cells.

"Published figure using CD40 monoclonal antibody (Product # 14-0401-82) in Flow Cytometry"

Authors: Pan YG,Yu YL,Lin CC,Lanier LL,Chu CL

Species
Not Applicable

Dilution
Not Cited

Year
2019

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

More applications with references on thermofisher.com

FN (7)

IV (2)

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