

CD40 Monoclonal Antibody (5C3), Functional Grade, eBioscience™

Product Details	
Size	50 µg
Species Reactivity	Human
Published Species	Human, Mouse
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), Functional Grade, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	5C3
Conjugate	Functional Grade
Form	Liquid
Concentration	1 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	no preservative
Storage conditions	4° C
RRID	AB_468948

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	1 µg/test	13 Publications
Neutralization (Neu)	-	1 Publication
Functional Assay (FN)	Assay-Dependent	4 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. 5C3 has also been reported in in vitro functional studies.

Applications Tested: The 5C3 antibody has been tested by flow cytometric analysis of normal human peripheral blood cells. 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.

Storage and handling: Use in a sterile environment.

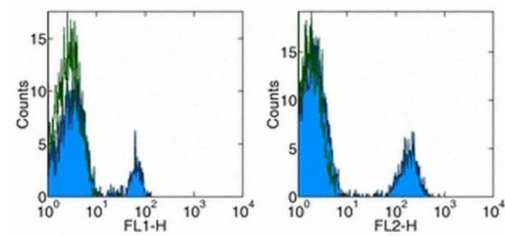
Filtration: 0.2 µm post-manufacturing filtered.

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

Endotoxin Level: Less than 0.001 ng/μg antibody, as determined by LAL assay.

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

Product Images For CD40 Monoclonal Antibody (5C3), Functional Grade, eBioscience™



CD40 Antibody (16-0409-81) in Flow
Staining of normal human peripheral blood cells with Anti-Human CD40 FITC (left) or PE (right). Appropriate isotype controls were used (open histogram). Cells in the lymphocyte population were used for analysis.

[View more figures on thermofisher.com](https://www.thermofisher.com)

Flow Cytometry (13)

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 # 16-0409-81) in Flow Cytometry"

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

Year
2021

Oncoimmunology

A replication-incompetent CD154/40L recombinant vaccinia virus induces direct and macrophage-mediated antitumor effects *in vitro* and *in vivo*.

"16-0409-81 was used in Flow Cytometry to observe that intra-tumoral injection of rVV40L-infected human macrophages inhibits progression of human CD40(-) tumors in vivo."

Authors: Governa V,Brittoli A,Mele V,Pinamonti M,Terracciano L,Muenst S,Iezzi G,Spagnoli GC,Zajac P,Trella E

Year
2021

Species
Human

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

Neutralization (1)

Scientific reports

Direct tumor recognition by a human CD4(+) T-cell subset potently mediates tumor growth inhibition and orchestrates anti-tumor immune responses.

"16-0409 was used in Blocking experiments to provide mechanistic insights into the role of tumour-recognising CD4(+) T cells in tumour immunity."

Authors: Matsuzaki J,Tsuji T,Luescher IF,Shiku H,Mineno J,Okamoto S,Old LJ,Shrikant P,Gnjatic S,Odunsi K

Year
2015

Species
Human

Functional Assay (4)

Scientific reports

Transcriptional and functional characterization of CD137L-dendritic cells identifies a novel dendritic cell phenotype.

"16-0409 was used in Functional assays to characterise the gene expression profile of CD137 ligand (CD137L)-dendritic cells (DCs), and identify significant similarities of CD137L-DCs with in vivo inflammatory monocyte-derived DCs and macrophages."

Authors: Harfuddin Z,Dharmadhikari B,Wong SC,Duan K,Poidinger M,Kwajah S,Schwarz H

Year
2016

Species
Human

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More applications with references on thermofisher.com

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