

CD40 Monoclonal Antibody (5C3), eBioscience™

Product Details

| | |
|--------------------|-------------------------|
| Size | 100 µg |
| Species Reactivity | Human |
| Published Species | Human |
| Host/Isotype | Mouse / IgG1, kappa |
| Class | Monoclonal |
| Type | Antibody |
| Clone | 5C3 |
| 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_467232 |

| Applications | Tested Dilution | Publications |
|-----------------------------------------|-----------------|-----------------|
| Immunohistochemistry (Frozen) (IHC (F)) | Assay-Dependent | - |
| Flow Cytometry (Flow) | 1 µg/test | 10 Publications |
| In vitro Assay (IV) | - | 1 Publication |
| Miscellaneous PubMed (Misc) | - | 1 Publication |

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, and immunohistochemical staining of frozen tissue sections. 5C3 has also been reported in in vitro functional studies. (Please use Functional Grade purified 5C3, cat. 16-0409, in functional assays.)

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.

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

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

Filtration: 0.2 µm post-manufacturing filtered.

12 References

Flow Cytometry (10)

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 # 14-0409-82) 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 # 14-0409-82) in Flow Cytometry"

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

Year
2020

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

In vitro Assay (1)

Nature

Genome-wide enhancer maps link risk variants to disease genes.

"14-0409-82 was used in In vitro experiments to reveal principles of genome regulation, identifies genes that affect IBD and provides a resource and generalizable strategy to connect risk variants of common diseases to their molecular and cellular functions."

Authors: Nasser J,Bergman DT,Fulco CP,Guckelberger P,Doughty BR,Patwardhan TA,Jones TR,Nguyen TH,Ulirsch JC,Lekschas F,Mualim K,Natri HM,Weeks EM,Munson G,Kane M,Kang HY,Cui A,Ray JP,Eisenhaure TM,Collins RL,Dey K,Pfister H,Price AL,Epstein CB,Kundaje A,Xavier RJ,Daly MJ,Huang H,Finucane HK,Hacohen N,Lander ES,Engreitz JM

Year
2021

Species
Human

Miscellaneous PubMed (1)

Cell

An Immune Atlas of Clear Cell Renal Cell Carcinoma.

"14-0409 was used in Mass cytometry to identify potential biomarkers and targets for immunotherapy development, and validate tools that can be used for immune profiling of other tumour types."

Authors: Chevrier S,Levine JH,Zanotelli VRT,Silina K,Schulz D,Bacac M,Ries CH,Ailles L,Jewett MAS,Moch H,van den Broek M,Beisel C,Stadler MB,Gedye C,Reis B,Pe'er D,Bodenmiller B

Year
2017

Species
Human

More applications with references on thermofisher.com

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