

CD40 Monoclonal Antibody (HM40-3), Functional Grade, eBioscience™

Product Details	
Size	25 mg
Species Reactivity	Mouse, Rat
Published Species	Mouse
Host/Isotype	Armenian hamster / IgM, kappa
Class	Monoclonal
Type	Antibody
Clone	HM40-3
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_2865717

Applications	Tested Dilution	Publications
Western Blot (WB)	-	1 Publication
Flow Cytometry (Flow)	1 µg/test	22 Publications
Functional Assay (FN)	Assay-Dependent	6 Publications
Inhibition Assays (IA)	-	1 Publication
In vitro Assay (IV)	-	2 Publications
Miscellaneous PubMed (Misc)	-	2 Publications

Product Specific Information

Description: The HM40-3 monoclonal antibody reacts with mouse and rat 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.

Applications Reported: The HM40-3 antibody has been reported for use in flow cytometric analysis. HM40-3 has also been reported in inhibition of binding of soluble CD154 to CD40 and in vitro activation of B cells.

Applications Tested: The HM40-3 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.

Storage and handling: Use in a sterile environment.

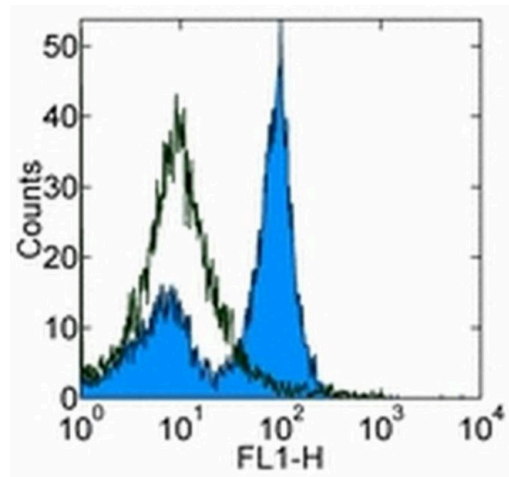
Filtration: 0.2 µm post-manufacturing filtered.

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 (HM40-3), Functional Grade, eBioscience™



CD40 Antibody (16-0402-025) in Flow
Staining of BALB/c splenocytes with 0.5 µg of FG Armenian Hamster IgG isotype control (Product # 16-4888-81) (open histogram) or 0.5 µg of Anti-Mouse/Rat CD40 Functional Grade Purified (filled histogram) followed by Anti-Armenian Hamster IgG FITC (Product # 11-4111). Total viable cells were used for analysis.

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Western Blot (1)

Cell reports	Year 2021
AMPK-mediated phosphorylation on 53BP1 promotes c-NHEJ.	Species Mouse
"16-0402-82 was used in Western Blot to demonstrate that AMPK is a regulator of 53BP1 and controls c-NHEJ choice by phospho-regulation."	
Authors: Jiang Y,Dong Y,Luo Y,Jiang S,Meng FL,Tan M,Li J,Zang Y	

Flow Cytometry (22)

Veterinary research	Year 2023
Curcumin-dependent phenotypic transformation of microglia mediates resistance to pseudorabies-induced encephalitis.	
"Published figure using CD40 monoclonal antibody (Product # 16-0402-82) in Flow Cytometry"	
Authors: Feng L,Luo G,Li Y,Zhang C,Liu Y,Liu Y,Chen H,He D,Zhu Y,Gan L	

Frontiers in immunology	Year 2022
PP2C Controls the Differentiation and Function of Dendritic Cells Through Regulating the NSD2/mTORC2/ACLY Pathway.	
"Published figure using CD40 monoclonal antibody (Product # 16-0402-82) in Flow Cytometry"	
Authors: Lv N,Jin S,Liang Z,Wu X,Kang Y,Su L,Dong Y,Wang B,Ma T,Shi L	

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

Functional Assay (6)

Communications biology	Year 2020
Molecular bases for HOIPINs-mediated inhibition of LUBAC and innate immune responses.	Species Mouse
"16-0402 was used in Functional assays to show that HOIPINs down-regulate not only the proinflammatory cytokine-induced canonical NF-B pathway, but also various pathogen-associated molecular pattern-induced antiviral pathways."	
Authors: Oikawa D,Sato Y,Ohtake F,Komakura K,Hanada K,Sugawara K,Terawaki S,Mizukami Y,Phuong HT,llo K,Obika S,Fukushi M,Irie T,Tsuruta D,Sakamoto S,Tanaka K,Saeki Y,Fukai S,Tokunaga F	

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More applications with references on thermofisher.com

- IA (1)
- IV (2)
- Misc (2)

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