

CD154 (CD40 Ligand) Monoclonal Antibody (MR1), PE-Cyanine7, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Host/Isotype	Armenian hamster / IgG
Recommended Isotype Control	Armenian Hamster IgG Isotype Control (eBio299Arm), PE-Cyanine7, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	MR1
Conjugate	PE-Cyanine7
Excitation/Emission Max	569/780 nm
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2573408

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.25 µg/test	2 Publications
Miscellaneous PubMed (Misc)	-	1 Publication

Product Specific Information

Description: The MR1 monoclonal antibody reacts with mouse CD154, a 39 kDa transmembrane glycoprotein also known as CD40 ligand (CD40L). CD154 is expressed transiently by activated T cells. Through its binding to CD40 on antigen presenting cells (APC) including B cells, monocytes/macrophages, and dendritic cells, it serves a crucial function in T cell-APC cognate interaction. CD154-interaction with CD40 transduces signals for T-dependent B cell activation and induces B cells to enter the cell cycle.

For staining for flow cytometric analysis, it is important to stimulate enriched T cells or enriched CD4 cells (using depletion strategy) prior to staining with MR1.

Applications Reported: This MR1 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This MR1 antibody has been tested by flow cytometric analysis of stimulated mouse splenocytes. This can be used at less than or equal to 0.25 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.

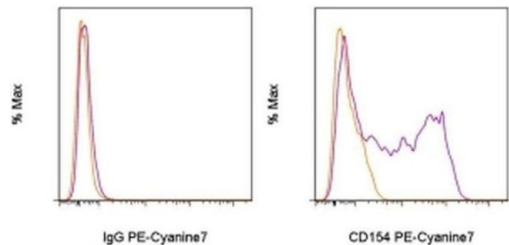
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222) (100 µL of cell sample + 100 µL of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 488-561 nm; Emission: 775 nm; Laser: Blue Laser, Green Laser, Yellow-Green Laser.

Filtration: 0.2 µm post-manufacturing filtered.

Product Images For CD154 (CD40 Ligand) Monoclonal Antibody (MR1), PE-Cyanine7, eBioscience™



CD154 (CD40 Ligand) Antibody (25-1541-82) in Flow
T cells sorted from BALB/c splenocytes using the MagniSort™ Mouse T cell Enrichment Kit (Product # 8804-6820) were unstimulated (orange histogram) or stimulated with the Cell Stimulation Cocktail (Product # 00-4970) (purple histogram) and stained with 0.125 µg of Armenian Hamster IgG Isotype Control PE-Cyanine7 (Product # 25-4888) (left) or 0.125 µg of Anti-Mouse CD154 (CD40 Ligand) PE-Cyanine7 (right). Cells in the lymphocyte gate were used for analysis.

View more figures on thermofisher.cn

3 References

Flow Cytometry (2)

Nature immunology	Year
Strength of tonic T cell receptor signaling instructs T follicular helper cell-fate decisions.	2020
"Published figure using CD154 (CD40 Ligand) monoclonal antibody (Product # 25-1541-82) in Flow Cytometry"	
Authors: Bartleson JM,Viehmann Milam AA,Donermeyer DL,Horvath S,Xia Y,Egawa T,Allen PM	
Oncoimmunology	Year
Helper cell-independent antitumor activity of potent CD8⁺ T cell epitope peptide vaccines is dependent upon CD40L.	2013
"Published figure using CD154 (CD40 Ligand) monoclonal antibody (Product # 25-1541-82) in Flow Cytometry"	
Authors: Llopiz D,Huarte E,Ruiz M,Bezunartea J,Belsúe V,Zabaleta A,Lasarte JJ,Prieto J,Borrás-Cuesta F,Sarobe P	

Miscellaneous PubMed (1)

Proceedings of the National Academy of Sciences of the United States of America	Year
Naive CD4 T cells constitutively express CD40L and augment autoreactive B cell survival.	2006
Authors: Lesley R,Kelly LM,Xu Y,Cyster JG	

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