CD154 (CD40 Ligand) Monoclonal Antibody (MR1), Super Bright™ 436, eBioscience™

Product Details	
Size	25 µg
Species Reactivity	Mouse
Host/Isotype	Armenian hamster / IgG
Recommended Isotype Control	Armenian Hamster IgG Isotype Control (eBio299Arm), Super Bright™ 436, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	MR1
Conjugate	Super Bright™ 436
Excitation/Emission Max	413/431 nm
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2744791

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.5 µg/test	2 Publications

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 may be used at less than or equal to 0.5 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 10^5 to 10^8 cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Super Bright 436 can be excited with the violet laser line (405 nm) and emits at 436 nm. We recommend using a 450/50 bandpass filter, or equivalent. Please make sure that your instrument is capable of detecting this fluorochrome.

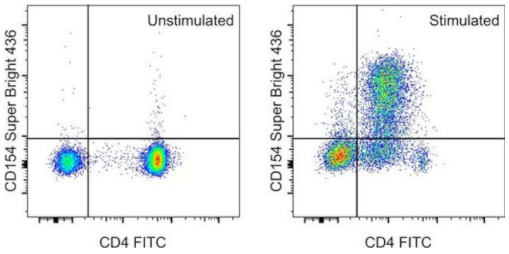
When using two or more Super Bright dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright Complete Staining Buffer (Product # SB-4401) to minimize any non-specific polymer interactions. Please refer to the datasheet

for Super Bright Staining Buffer for more information.

Excitation: 405 nm; Emission: 436 nm; Laser: Violet Laser

Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

Product Images For CD154 (CD40 Ligand) Monoclonal Antibody (MR1), Super Bright™ 436, eBioscience™



CD154 (CD40 Ligand) Antibody (62-1541-80) in Flow
CD3+ T cells sorted from BALB/c mouse splenocytes were were unstimulated (left) or stimulated overnight with the Cell Stimulation Cocktail (Product # 00-4970-93) (right). Cells were stained with CD4 Monoclonal Antibody, FITC (Product # 11-0041-82) and 0.25 µg of CD154 Monoclonal Antibody, Super Bright 436 (right). Cells in the lymphocyte gate were used for analysis.

View more figures on thermofisher.com

2 References

Flow Cytometry (2)

Nature immunology

Strength of tonic T cell receptor signaling instructs T follicular helper cell-fate decisions.

"Published figure using CD154 (CD40 Ligand) monoclonal antibody (Product # 62-1541-82) in Flow Cytometry"

Authors: Bartleson JM,Viehmann Milam AA,Donermeyer DL,Horvath S,Xia Y,Egawa T,Allen PM

Year
2020

Oncoimmunology

Helper cell-independent antitumor activity of potent CD8^{+} T cell epitope peptide vaccines is dependent upon CD40L.

"Published figure using CD154 (CD40 Ligand) monoclonal antibody (Product # 62-1541-82) 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

Year
2013