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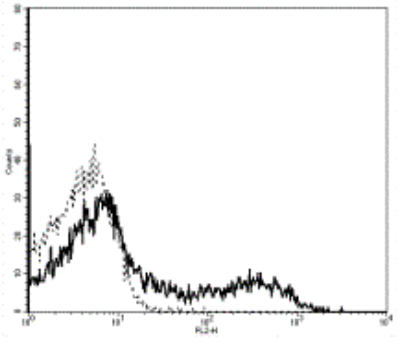
Product Information

Contents: Phycoerythrin (PE) anti-mouse CD154 (CD40 Ligand, CD40L, gp39)
Catalog Number: 12-1541
Sizes: 50 ug, 100 ug, 200 ug
Formulation: Phosphate buffer pH 7.2, 150 mM NaCl, 0.09% NaN_3
Storage Conditions: Store at 4°C.
DO NOT FREEZE.
LIGHT-SENSITIVE MATERIAL.
Clone: MR1
Isotype: Armenian Hamster IgG



CD154 expression on 8 hour CD3-activated mouse splenic T cells was determined using PE anti-mouse CD154 (gp39), MR1. The dotted line shows autofluorescence and the bold histogram shows the staining of a subpopulation of these activated cells with anti-CD154.

Available Formats of This Product				
Cat. No.	Format	Excite (nm)	Emit (nm)	Reported Applications
12-1541	PE anti-mouse CD154 (CD40 Ligand, CD40L, gp39)	488	575	FC
13-1541	Biotin anti-mouse CD154 (CD40 Ligand, CD40L, gp39)	N/A	N/A	FC
14-1541	Affinity Purified anti-mouse CD154 (CD40 Ligand, CD40L, gp39)	N/A	N/A	FA FC IHC
16-1541	Functional Grade* Purified anti-mouse CD154 (CD40 Ligand, CD40L, gp39)	N/A	N/A	FA FC

*Functional Grade™ (FG™): Azide-free, sterile-filtered, and endotoxin < 0.001 ng/µg.
Purified: Contains azide, not sterile-filtered, and not endotoxin tested.

Description

The MR1 monoclonal antibody reacts with mouse CD154, a 39 kDa transmembrane glycoprotein also known as gp39 and CD40 ligand (CD40L). gp39 is expressed transiently by activated T cells and through its binding to CD40 on antigen presenting cells including B cells, monocytes/macrophages and dendritic cells, serves a crucial function in T-APC cognate interaction. gp39 interaction with CD40 transduces signals for T-dependent B cell activation and induces B cell cycle entry.

Usage

For research use only, not for diagnostic or therapeutic use. The MR1 antibody has been reported for use in flow cytometric analysis.

Applications Tested

The MR1 antibody has been tested by flow cytometric analysis of resting and 6-8 hour activated splenocyte suspensions. This can be used at less than or equal to 0.25 µg per million cells in a 100 µl total staining volume. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Related Products

Cat. 13-1541 Biotin anti-mouse CD154 (CD40 Ligand, CD40L, gp39) (clone MR1)
Cat. 14-1541 Affinity Purified anti-mouse CD154 (CD40 Ligand, CD40L, gp39) (clone MR1)
Cat. 16-1541 Functional Grade Purified anti-mouse CD154 (CD40 Ligand, CD40L, gp39) (clone MR1)
Cat. 12-4914 Phycoerythrin (PE) Golden Syrian Hamster IgG Isotype Control (clone n/a)

References

Noelle, R. J., M. Roy, et al. (1992). "A 39-kDa protein on activated helper T cells binds CD40 and transduces the signal for cognate activation of B cells." Proc Natl Acad Sci U S A 89(14): 6550-4.

Roy, M., T. Waldschmidt, et al. (1993). "The regulation of the expression of gp39, the CD40 ligand, on normal and cloned CD4+ T cells." J Immunol 151(5): 2497-510.

Van den Eertwegh, A. J., R. J. Noelle, et al. (1993). "In vivo CD40-gp39 interactions are essential for thymus-dependent humoral immunity. I. In vivo expression of CD40 ligand, cytokines, and antibody production delineates sites of cognate T-B cell interactions." J Exp Med 178(5): 1555-65.

Roy, M., A. Aruffo, et al. (1995). "Studies on the interdependence of gp39 and B7 expression and function during antigen-specific immune responses." Eur J Immunol 25(2): 596-603.