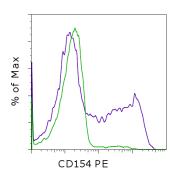


An Affymetrix Company

# Anti-Mouse CD154 (CD40 Ligand) PE

Catalog Number: 12-1541 Also known as: CD40L

RUO: For Research Use Only. Not for use in diagnostic procedures.



Staining of unstimulated (green histogram) or PMA/ionomycin-stimulated (purple histogram) BALB/c splenocytes with 0.125 ug of Anti-Mouse CD154 (CD40 Ligand) PE. Total viable cells were used for analysis.

# **Product Information**

Contents: Anti-Mouse CD154 (CD40 Ligand)

REF Catalog Number: 12-1541

Clone: MR1

Concentration: 0.2 mg/mL

Host/Isotype: Armenian Hamster IgG

Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer

Temperature Limitation: Store at 2-8°C. Do not



freeze. Light sensitive material. Batch Code: Refer to vial



Use By: Refer to vial

#### 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.

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**

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 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<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

#### References

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Roy M, Aruffo A, Ledbetter J, Linsley P, Kehry M, Noelle R. Studies on the interdependence of gp39 and B7 expression and function during antigen-specific immune responses. Eur J Immunol. 1995 Feb;25(2):596-603.

Yellin MJ, Sippel K, Inghirami G, Covey LR, Lee JJ, Sinning J, Clark EA, Chess L, Lederman S. CD40 molecules



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induce down-modulation and endocytosis of T cell surface T cell-B cell activating molecule/CD40-L. Potential role in regulating helper effector function. J Immunol. 1994 Jan 15;152(2):598-608.

Van den Eertwegh AJ, Noelle RJ, Roy M, Shepherd DM, Aruffo A, Ledbetter JA, Boersma WJ, Claassen E. 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. 1993 Nov 1;178(5):1555-65.

Roy M, Waldschmidt T, Aruffo A, Ledbetter JA, Noelle RJ. The regulation of the expression of gp39, the CD40 ligand, on normal and cloned CD4+ T cells. J Immunol. 1993 Sep 1;151(5):2497-510.

Noelle RJ, Roy M, Shepherd DM, Stamenkovic I, Ledbetter JA, Aruffo A. 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. 1992 Jul 15;89(14):6550-4.

# **Related Products**

12-4888 Armenian Hamster IgG Isotype Control PE (eBio299Arm)