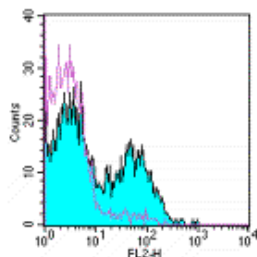


Anti-Mouse CD154 (CD40 Ligand) Functional Grade Purified

Catalog Number: 16-1541

Also Known As: CD40L

RUO: For Research Use Only



Staining of 6 hour PMA/Ionomycin activated T cells from BALB/c spleen with 0.25 µg of Armenian Hamster IgG Isotype Control Functional Grade Purified (cat.16-4888) (open histogram) or 0.25 µg of Anti-Mouse CD154 Functional Grade Purified (right) followed by Anti-Armenian Hamster IgG Biotin (cat.13-4113) and Streptavidin PE (cat. 12-4317). Total viable cells were used for analysis.

Product Information

Contents: Anti-Mouse CD154 (CD40 Ligand) Functional Grade Purified

REF **Catalog Number:** 16-1541

Clone: MR1

Concentration: 1 mg/ml

Host/Isotype: Armenian Hamster IgG

Handling Conditions: Use in sterile environment.

Endotoxin Level: Less than 0.001 ng/ug antibody, as determined by the LAL assay.

Formulation: aqueous buffer, no sodium azide

 **Temperature Limitation:** Store at 2-8°C.

LOT **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. It has also been reported to inhibit both the binding of CD154 to CD40 and activation of B cells.

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 0.5 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 10⁵ to 10⁸ 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, 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

11-4111 Anti-Armenian Hamster IgG FITC

11-4317 Streptavidin FITC

12-4317 Streptavidin PE

13-4113 Anti-Armenian Hamster IgG Biotin (Polyclonal)

16-4888 Armenian Hamster IgG Isotype Control Functional Grade Purified (eBio299Arm)

17-4317 Streptavidin APC

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