

Anti-Mouse CD154 (CD40 Ligand) PE

Catalog Number :16612-60

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

Product Information

Clone: MR1

Format/Conjugate: PE

Concentration: 0.2 mg/mL

Reactivity: Mouse

Laser: Blue (488nm), Yellow/Green (532-561nm)

Peak Emission: 578nm

Peak Excitation: 496nm

Filter: 585/40

Brightness (1=dim,5=brightest): 5

Isotype: Armenian Hamster IgG

Formulation: Phosphate-buffered aqueous solution, ≤0.09% Sodium azide, may contain carrier protein/stabilizer, pH7.2.

Storage: Product should be kept at 2-8°C and protected from prolonged exposure to light.

Applications: FC

Description

The MR1 monoclonal antibody specifically reacts with mouse CD154, a 39kDa transmembrane glycoprotein also known as CD40 ligand and gp39. CD154 is expressed on activated T cells and plays a role in B-T cell costimulation. The interaction of CD154 with CD40 induces B cell cycle entry and the signaling for T-dependent B cell activation. By interfering with this interaction, the MR1 antibody is reported to inhibit T and B lymphocyte activation.

Preparation & Storage

The product should be stored undiluted at 4°C and should be protected from prolonged exposure to light. Do not freeze. The monoclonal antibody was purified utilizing affinity chromatography and unreacted dye was removed from the product.

Application Notes

The antibody has been analyzed for quality through the flow cytometric analysis of the relevant cell type. The antibody can be used at less than or equal to 5 µL per test. A test is the amount of antibody required to stain a cell sample in the final volume of 100 µL.

References

1. Noelle, R. J., Roy, M., Shepherd, D. M., Stamenkovic, I., Ledbetter, J. A., Aruffo, A. (1992). A 39-kDa protein on activated helper T cells binds CD40 and transduces the signal for cognate activation of B cells.; *Proceedings of the National Academy of Sciences*;;89(14), 6550-6554.
2. Roy, M., Aruffo, A., Ledbetter, J., Linsley, P., Kehry, M., Noelle, R. (1995). Studies on the interdependence of gp39 and B7 expression and function during antigen-specific immune responses.; *European journal of immunology*;;25(2), 596-603.
3. Van den Eertwegh, A. J., Noelle, R. J., Roy, M. E. E. N. A. K. S. H. I., Shepherd, D. M., Aruffo, A., Ledbetter, J. A., ... Claassen, E. (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 TB cell interactions.; *The Journal of experimental medicine*;;178(5), 1555-1565.