biogems
Enabling Science through Innovation

Technical Data Sheet

# Anti-Mouse CD154 (CD40 Ligand) Biotin

Catalog Number :16612-30

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

## Product Information

**Clone:** MR1

**Format/Conjugate:** Biotin

**Concentration:** 0.5 mg/mL

**Reactivity:** Mouse

**Laser:** Not Applicable

**Peak Emission:** Not Applicable

**Peak Excitation:** Not Applicable

**Filter:** Not Applicable

**Brightness (1=dim,5=brightest):** Not Applicable

**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. For flow cytometric staining, the suggested use of this reagent is ≤0.25 ug per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

## 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.

email: info@bio-gems.com | domain: www.bio-gems.com | phone: 818.338.3312 | fax: 818.338.3316