



CELL LAB Hamster Anti-Mouse CD154

<u>Cat. No.</u>	<u>Form</u>	<u>Quantity</u>
732141	Purified (UNLB) Antibody	0.5 mg
732142	Fluorescein (FITC) Conjugate	0.5 mg
732143	Biotin (BIOT) Conjugate	0.5 mg
732144	Phycoerythrin (PE) Conjugate	0.1 mg

For Laboratory Use Only

DESCRIPTION

Clone: MR1
Isotype: Armenian Hamster IgG κ
Immunogen: Activated mouse T_h1 clone D1.6¹
Specificity: CD154 (Mouse CD40 ligand/gp39), Mr 39-kDa

CD154, formerly known as CD40 ligand and gp39, is a type II integral membrane protein and a member of the tumor necrosis factor (TNF) family of ligands.¹⁻⁷ It is an important accessory molecule in T cell-B cell co-stimulatory interactions, and is expressed predominantly on activated CD4⁺ T lymphocytes. It is also present on the surface of activated Th0, Th1, and Th2 T cell clones. Its expression is transient and cyclosporin-sensitive.⁶ The MR1 monoclonal antibody (MAb) binds to murine CD154 with high affinity, blocks binding to CD40, and blocks CD154 function.^{1,5} Administration of this antibody to mice blocks the ability to mount primary and secondary immune responses to TD antigens, yet does not alter the immune response to TI antigens.⁴

APPLICATIONS

- Flow cytometry^{1,5}
- Immunoprecipitation¹
- *In vitro* blockage of CD154 function^{1,3,5}

CHARACTERIZATION

To ensure lot-to-lot consistency, each batch of product is tested to conform with characteristics of a standard reference reagent using flow cytometry.

WORKING DILUTIONS

Flow Cytometry:

Fluorescein conjugate	≤2 μg/10 ⁶ cells
Biotin conjugate	≤2 μg/10 ⁶ cells
Phycoerythrin conjugate	≤0.2 μg/10 ⁶ cells

Other Applications: Since applications vary, determine the optimum working dilution of the product that is appropriate for your specific needs.

HANDLING AND STORAGE

- The purified (UNLB) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of 100 mM borate buffered saline, pH 8.0. No preservatives or amine-containing buffer salts added.
- The fluorescein (FITC) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃.

- The Phycoerythrin (PE) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN₃ and a stabilizing agent.
- Protect fluorochrome-conjugated forms from light. Do not freeze.
- Reagent is stable until the expiration date on the vial when stored at 2-8°C.

STATEMENT OF WARNINGS

1. Specimens, samples and all material coming in contact with them should be handled as if capable of transmitting infection and disposed of with proper precautions.
2. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.
3. Do not use reagent beyond the expiration date on the vial label.
4. Minimize exposure of reagent to light during storage or incubation.
5. Avoid microbial contamination of reagent or erroneous results may occur.
6. Use Good Laboratory Practice (GLP) when handling this reagent.
7. Harmful if swallowed.
8. After contact with skin, wash immediately with plenty of water.
9. Contains sodium azide. Sodium azide under acidic conditions yields hydrazoic acid, an extremely toxic compound. Azide compounds should be flushed with running water while being discarded. These precautions are recommended to avoid deposits in metal piping in which explosive conditions can develop. If skin or eye contact occurs, immediately wash excessively with water.

TRADEMARKS

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For additional information or if damaged product is received, contact your local Beckman Coulter Representative.

REFERENCES

1. Noelle RJ, Roy M, Shepherd DM, Stamenkovic I, Ledbetter JA and Aruffo A. 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 USA*; 89:6550-6554.
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6. Roy M, Waldschmidt TJ, Aruffo A, Ledbetter JA and Noelle RJ. 1993. The regulation of the expression of gp39, the CD40 ligand, on normal and cloned CD4+ T cells. *J Immunol*, 151:2497-2510.
7. Armitage RJ, Fanslow WC, Stockbine L, Sato TA, Clifford KN, Macduff BM, Anderson DM, Gimpel SD, Davis-Smith T, Maliszewski CR, et al. 1992. Molecular and biological characterization of a murine ligand for CD40. *Nature*, 357:80-82.



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