CELL LAB Rat Anti-Mouse CD4/L3T4

Cat. No.	Form	Quantity
731998	Purified (UNLB) Antibody	0.5 mg
731999	Fluorescein (FITC) Conjugate	0.5 mg
732000	Fluorescein (FITC) Conjugate	0.1 mg
732001	Biotin (BIOT) Conjugate	0.5 mg
732002	Phycoerythrin (PE) Conjugate	0.1 mg
732003	Allophycocyanin (APC) Conjugate	0.1 mg
732006	Cyanine 5 (CY™5) Conjugate	0.1 mg

For Laboratory Use Only

DESCRIPTION

Clone: GK1.5
Isotype: Rat (Lewis) IgG2bκ
Immunogen: Cloned mouse CTL line V4[1]
Specificity: CD4/L3T4, Mr 52 kDa

CD4/L3T4 is a type I transmembrane glycoprotein expressed on most thymocytes and the helper/inducer subpopulation of mature T lymphocytes of all mouse strains tested.[1,2] CD4 has also been detected at low density on pluripotent hematopoietic stem cells, bone marrow myeloid precursors, and intrathymic lymphoid precursors.[3-6] The CD4 antigen functions as a co-receptor, interacting with class II major histocompatibility complex (MHC) molecules in the recognition of foreign antigens by T cells.[1,2] *In vitro* treatment with the GK1.5 monoclonal antibody (MAb) effectively depletes $CD4^+$ cells.[7,8] The MAb also blocks helper T cell responses to MHC class II antigens, including cytolysis, proliferation, allogeneic B cell help, and release of lymphokines.[1,8-13]

APPLICATIONS

- Flow cytometry[1]
- Immunohistochemistry (acetone-fixed frozen sections)
- Immunoprecipitation[1,2]
- *In vitro* depletion of $CD4^+$ cells[6,7]
- Inhibition of T helper functions[1,2,8-13]
- Fractionation of $CD4^+$ cells

CHARACTERIZATION

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

WORKING DILUTIONS

Flow Cytometry:	Fluorescein conjugate	≤1.0 µg/10^6 cells
	Biotin conjugate	≤1.0 µg/10^6 cells
	Phycoerythrin conjugate	≤0.2 µg/10^6 cells
	Allophycocyanin conjugate	≤0.2 µg/10^6 cells
	Cyanine 5 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) conjugates are supplied as 0.5 mg or 0.1 mg in 1.0 mL of PBS/NaN_3.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN_3.
- The Phycoerythrin (PE) conjugate is supplied as 0.1 mg in 1.0 of PBS/NaN_3 and a stabilizing agent.
- The allophycocyanin (APC) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN_3 and a stabilizing agent.
- The Cyanine 5 (CY5) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN_3.
- 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

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

REFERENCES

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11. Bluestone JA, Cron RQ, Barrett TA, et al. 1991. Repertoire development and ligand specificity of murine TCR gamma delta cells. *Immunol Rev*, 120:5-33.
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