



CELL LAB Rat Anti-Mouse CD122/IL-2R β

<u>Cat. No.</u>	<u>Form</u>	<u>Quantity</u>
732490	Purified (UNLB) Antibody	0.5 mg
732491	Fluorescein (FITC) Conjugate	0.5 mg
734697	Biotin (BIOT) Conjugate	0.5 mg
734705	Allophycocyanin (APC) Conjugate	0.1 mg

For Laboratory Use Only

DESCRIPTION

Clone: 5H4
Isotype: Rat (Lewis) IgG2 α
Immunogen: Rat myeloma YB2/0 transfected with truncated mouse IL-2RB cDNA¹
Specificity: β chain (Mr 90-100 kDa) of the IL-2 receptor.

The IL-2 receptor is a complex of three distinct polypeptide chains: (i) the α chain which binds IL-2 with low affinity; (ii) the β chain that binds IL-2 with high affinity; and (iii) the common γ chain (γ_c) that does not bind IL-2.² The high affinity receptor complex is an $\alpha/\beta/\gamma$ heterotrimer with a K_d of 1.3×10^{-11} M.² In mouse spleen, CD122 is expressed on ~30% of CD8⁺ cells and all NK cells, but <1% of B cells and CD4⁺ T lymphocytes. In the thymus, its expression is confined to CD4⁻ CD8⁺ single positive and CD4⁻CD8⁻ double negative cells.³ Cytoplasmic regions of the IL-2R β chain are involved in IL-2-mediated cellular signalling¹ and, via the interaction of IL-2 and its receptor complex, may be involved in the generation and differentiation of T lymphocytes.³ Monoclonal antibody 5H4 does not block IL-2 binding¹

APPLICATIONS

- Flow cytometry¹
- Immunoprecipitation¹

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:

FITC conjugate	$\leq 1 \mu\text{g}/10^6$ cells
BIOT conjugate	$\leq 1 \mu\text{g}/10^6$ cells
APC conjugate	$\leq 0.2 \mu\text{g}/10^6$ 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 allophycocyanin (APC) 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. Malek TR, Furse RK, Fleming ML, Fadell AJ and He YW. 1995. Biochemical identity and characterization of the mouse interleukin-2 receptor beta and gamma c subunits. *J Interferon Cytokine Res*, 15:447-454.
2. Minami Y, Kono T, Miyazaki T and Taniguchi T. 1993. The IL-2 receptor complex: its structure, function, and target genes. *Annu Rev Immunol*, 11:245-268.
3. Tanaka T, Tsudo M, Karasuyama H, Kitamura F, Kono T, Hatakeyama M, Taniguchi T and Miyasaka M. 1991. A novel monoclonal antibody against murine IL-2 receptor beta-chain. Characterization of receptor expression in normal lymphoid cells and EL-4 cells. *J Immunol*, 147:2222-2228.



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