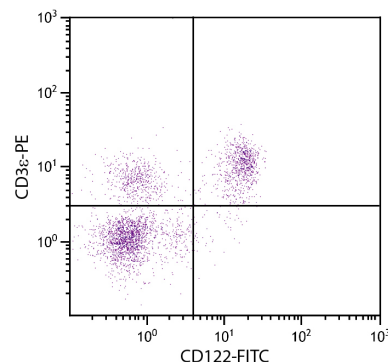


## Rat Anti-Mouse CD122

Cat. No.	Format	Size
1905-01	Purified (UNLB)	0.5 mg
1905-02	Fluorescein (FITC)	0.5 mg
1905-08	Biotin (BIOT)	0.5 mg
1905-09	R-phycoerythrin (PE)	0.1 mg
1905-11	Allophycocyanin (APC)	0.1 mg
1905-14	Low Endotoxin, Azide-Free (LE/AF)	0.5 mg



BALB/c mouse splenocytes were stained with Rat Anti-Mouse CD122-FITC (SB Cat. No. 1905-02) and Rat Anti-Mouse CD3ε-PE (SB Cat. No. 1535-09).

### Overview

<b>Clone</b>	5H4
<b>Isotype</b>	Rat (Lewis) IgG <sub>2a</sub> K
<b>Immunogen</b>	Rat myeloma YB2/0 transfected with truncated IL-2Rβ cDNA (YB2/0-mβt-28)
<b>Specificity</b>	Mouse CD122; 90-100 kDa
<b>Alternate Name(s)</b>	IL-2Rβ, IL-15 receptor β chain

### Description

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

### Applications

FC – Quality tested <sup>1,2</sup>  
IP – Reported in literature <sup>1,2</sup>

### Working Dilutions

<b>Flow Cytometry</b>	FITC and BIOT conjugates	$\leq 1 \mu\text{g}/10^6$ cells
	PE and APC conjugates	$\leq 0.2 \mu\text{g}/10^6$ cells
	For flow cytometry, the suggested use of these reagents is in a final volume of 100 $\mu\text{L}$	
<b>Other Applications</b>	Since applications vary, you should determine the optimum working dilution for the product that is appropriate for your specific need.	

**For Research Use Only. Not for Diagnostic or Therapeutic Use.**

## Handling and Storage

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- The purified (UNLB) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of borate buffered saline, pH 8.2. *No preservatives or amine-containing buffer salts added.* Store at 2-8°C.
- The fluorescein (FITC) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN<sub>3</sub>. Store at 2-8°C.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN<sub>3</sub>. Store at 2-8°C.
- The R-phycoerythrin (PE) and allophycocyanin (APC) conjugates are supplied as 0.1 mg in 1.0 mL of PBS/NaN<sub>3</sub> and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The low endotoxin, azide-free (LE/AF) antibody is supplied as 0.5 mg purified immunoglobulin in 1.0 mL of PBS. Contains no preservative; handle under aseptic conditions. Store at 2-8°C or aliquot into smaller volumes and store at -20°C. Avoid multiple freeze / thaw cycles.
- Protect fluorochrome-conjugated forms from light. Reagents are stable for the period shown on the label if stored as directed.

## Warning

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Some reagents contain sodium azide. Please refer to product specific SDS.

## References

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1. Malek TR, Furse RK, Fleming ML, Fadell AJ, He Y. Biochemical identity and characterization of the mouse interleukin-2 receptor  $\beta$  and  $\gamma_c$  subunits. J Interferon Cytokine Res. 1995;15:447-54. (Immunogen, FC, IP)
2. Furse RK, Malek TR. Selection of internalization-deficient cells by interleukin-2-Pseudomonas exotoxin chimeric protein: the cytoplasmic domain of the interleukin-2 receptor  $\beta$  chain does not contribute to internalization of interleukin-2. Eur J Immunol. 1993;23:3181-8. (FC, IP)