PerCP/Cyanine5.5 anti-mouse CD122 (IL-2Rβ) Antibody

Catalog# / Size	123211 / 25 µg 123212 / 100 µg
Clone	TM-β1
Regulatory Status	RUO
Other Names	IL-2 Receptor β chain, IL-2Rβ
Isotype	Rat IgG2b, κ
Description	CD122 is a 70-75 kD IL-2 receptor β chain also known as IL-2Rβ, which is also shared by the IL-15 receptor. It is constitutively expressed by NK cells and at lower levels by T cells, B cells, monocytes, and macrophages. The IL-2Rβ chain can combine with either the common γ subunit (γ_c, CD132) alone or with the γ_c subunit and the IL-2Rα subunit (CD25) to generate intermediate or high affinity IL-2 receptor complexes, respectively. CD122 expression levels can be upregulated by activation. The TM-β1 antibody does inhibit IL-2 binding to the IL-2 receptor. CD122 is expressed on murine, but not human, CD8+ Tregs involved in the maintenance of T cell homeostasis.

Product Details

Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Rat T cell line expressing mouse CD122 (IL-2Rβ)
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography and conjugated with PerCP/Cyanine5.5 under optimal conditions.
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. **Do not freeze.**
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤0.5 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application. * PerCP/Cyanine5.5 has a maximum absorption of 482 nm and a maximum emission of 690 nm.
Application Notes	Additional reported applications (for the relevant formats) include: immunoprecipitation[1], blocking of IL-2 binding[1], and NK cell depletion[2] *in vivo*. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for blocking of IL-2 binding *in vivo* and *in vitro* (Cat. No. 123204).
Additional Product Notes	BioLegend is in the process of converting the name PerCP/Cy5.5 to PerCP/Cyanine5.5. The dye molecule remains the same, so you should expect the same quality and performance from our PerCP/Cyanine5.5 products. Contact Technical Service if you have any questions.
Application References **(PubMed link indicates BioLegend citation)**	1. Tanaka T, *et al.* 1991. *J. Immunol.* 147:2222. 2. Tanaka T, *et al.* 1993. *J. Exp. Med.* 178:1103. 3. Tanaka T, *et al.* 1992. *Int. Immunol.* 4:487.
Product Citations	1. Isvoranu G, *et al.* 2019. Oncol Lett. 17:4197. PubMed 2. Toshiro Hirai *et al.* 2019. Immunity. 50(5):1249-1261 . PubMed

RRID	AB_2562539 (BioLegend Cat. No. 123211) AB_2562540 (BioLegend Cat. No. 123212)

Antigen Details

Structure	Ig superfamily, forms high affinity IL-2 receptor with CD25 and CD132 chains or intermediate affinity receptor with CD132 alone, 70-75 kD
Distribution	T and B cells, NK cells, monocytes, macrophages
Function	Critical component of IL-2 and IL-15 signaling
Ligand/Receptor	IL-2, IL-15
Cell Type	B cells, Macrophages, Monocytes, NK cells, T cells, Tregs
Biology Area	Immunology
Molecular Family	CD Molecules, Cytokine/Chemokine Receptors
Antigen References	1. Barclay A, *et al.* 1997. The Leukocyte Antigen FactsBook Academic Press. 2. Minami Y, *et al.* 1993. *Annu. Rev. Immunol.* 11:245. 3. Suzuki H, *et al.* 1995. *Science* 268:1472. 4. Shi Z, *et al.* 2009. *Eur. J. Immunol.* 39:2109.
Gene ID	16185

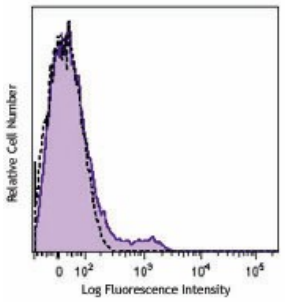
Related Protocols

Cell Surface Flow Cytometry Staining Protocol

Other Formats

Biotin anti-mouse CD122 (IL-2Rβ), FITC anti-mouse CD122 (IL-2Rβ), PE anti-mouse CD122 (IL-2Rβ), PerCP/Cyanine5.5 anti-mouse CD122 (IL-2Rβ), APC anti-mouse CD122 (IL-2Rβ), PE/Cyanine7 anti-mouse CD122 (IL-2Rβ), PE/Dazzle™ 594 anti-mouse CD122 (IL-2Rβ), PE/Cyanine5 anti-mouse CD122 (IL-2Rβ), APC/Cyanine7 anti-mouse CD122 (IL-2Rβ), Ultra-LEAF™ Purified anti-mouse CD122 (IL-2Rβ)

Product Data



C57BL/6 mouse splenocytes were stained with CD122 (clone TM-β1) PerCP/Cyanine5.5 (filled histogram) or rat IgG2b, κ PerCP/Cyanine5.5 isotype control (dashed histogram).

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