

Brilliant Violet 421™ anti-mouse CD122 (IL-2Rβ) Antibody

Catalog# / Size	123229 / 50 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

Verified 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 and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 421™ under optimal conditions.
Concentration	0.2 mg/mL
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	<p>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.</p> <p>Brilliant Violet 421™ excites at 405 nm and emits at 421 nm. The standard bandpass filter 450/50 nm is recommended for detection. Brilliant Violet 421™ is a trademark of Sirigen Group Ltd.</p> <p>Learn more about Brilliant Violet™.</p> <p>This product is subject to proprietary rights of Sirigen Inc. and is made and sold under license from Sirigen Inc. The purchase of this product conveys to the buyer a non-transferable right to use the purchased product for research purposes only. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.</p>
Excitation Laser	Violet Laser (405 nm)
Application Notes	Additional reported applications (for the relevant formats) include: immunoprecipitation ¹ , blocking of IL-2 binding ¹ , and NK cell depletion ² <i>in vivo</i> . 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).

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.

RRID

AB_3662405 (BioLegend Cat. No. 123229)

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	<ol style="list-style-type: none">1. Barclay A, <i>et al.</i> 1997. <i>The Leukocyte Antigen FactsBook</i> Academic Press.2. Minami Y, <i>et al.</i> 1993. <i>Annu. Rev. Immunol.</i> 11:245.3. Suzuki H, <i>et al.</i> 1995. <i>Science</i> 268:1472.4. Shi Z, <i>et al.</i> 2009. <i>Eur. J. Immunol.</i> 39:2109.
Gene ID	16185

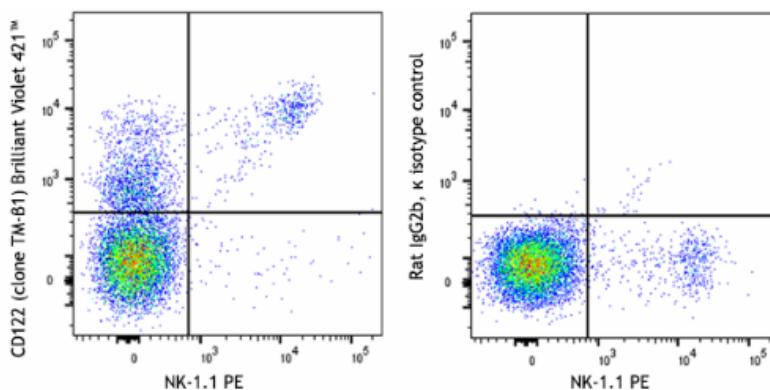
Related Protocols

- [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), Brilliant Violet 421™ anti-mouse CD122 (IL-2Rβ)

Product Data



C57BL/6 mouse splenocytes were stained with anti-mouse NK-1.1 (clone PK136) PE and anti-mouse CD122 (IL-2Rβ) (clone TM-β1) Brilliant Violet 421™ (left) or rat IgG2b, κ Brilliant Violet 421™ isotype control (right).

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