

Datasheet: MCA2363A647

Description:	RAT ANTI MOUSE CD122:Alexa Fluor® 647
Specificity:	CD122
Other names:	INTERLEUKIN-2 RECEPTOR BETA CHAIN
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	TM-BETA 1
Isotype:	IgG2b
Quantity:	100 TESTS/1ml

Product Details

RRID AB_566483

Applications This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. It is recommended that the user titrates the antibody for use in their own system to a concentration equivalent to their test reagent.

Target Species Mouse

Product Form Purified IgG conjugated to Alexa Fluor® 647- liquid

Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	Alexa Fluor®647	650	665

Preparation Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

Buffer Solution Phosphate buffered saline

Preservative 0.09% Sodium Azide
Stabilisers 1% Bovine Serum Albumin

Approx. Protein Concentrations IgG concentration 0.05 mg/ml

Immunogen Cells from murine IL-2RB⁺ transformant TART-mBeta.

External Database Links
UniProt: [P16297](https://www.uniprot.org/entry/P16297) [Related reagents](#)

Entrez Gene:

[16185](#) [Il2rb](#) [Related reagents](#)

Fusion Partners Lymph node cells from immunised Sprague Dawley rats were fused with cells of the mouse PA1 myeloma cell line.

Specificity **Rat anti Mouse CD122 antibody, clone TM-BETA 1** recognizes the murine CD122 cell surface glycoprotein, a ~75-85 kDa molecule also known as interleukin-2 receptor (IL-2R) beta chain. In mouse, CD122 is primarily expressed on natural killer (NK) cells and at lower levels on lymphocyte subsets, monocytes and macrophages.

CD122 can associate with the IL-2R alpha chain (CD25) and CD132 to form a functional high affinity receptor complex that binds IL-2. CD132/CD122 heterodimers can also be formed which bind IL-2 with intermediate affinity. IL-2 binding to the IL-2R is important in the generation and differentiation of T lymphocytes and NK cells.

Rat anti Mouse CD122 antibody, clone TM-BETA 1 blocks IL-2 high affinity binding to the IL-2R beta receptor ([Tanaka et al. 1991](#)).

Flow Cytometry Use 10ul of the suggested working dilution to label 10⁶ cells in 100ul.

The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity fc receptors. This may be reduced by using SeroBlock FcR ([BUF041A/B](#)).

References

1. Tanaka, T. *et al.* (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 \(7\): 2222-8.](#)
 2. Leung, K.T. (2011) The tetraspanin CD9 regulates migration, adhesion, and homing of human cord blood CD34+ hematopoietic stem and progenitor cells. [Blood. 117: 1840-50.](#)
 3. Chenoweth, M.J. *et al.* (2012) IL-15 Can Signal via IL-15R α , JNK, and NF- κ B To Drive RANTES Production by Myeloid Cells. [J Immunol. 188: 4149-57.](#)
 4. Mertens, J. *et al.* (2009) Streptococcus pneumoniae serotype 1 capsular polysaccharide induces CD8CD28 regulatory T lymphocytes by TCR crosslinking. [PLoS Pathog. 5 \(9\): e1000596.](#)
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Storage Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee 18 months from date of despatch.

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10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

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North & South America Tel: +1 800 265 7376
Fax: +1 919 878 3751
Email: antibody_sales_us@bio-rad.com

Worldwide Tel: +44 (0)1865 852 700
Fax: +44 (0)1865 852 739
Email: antibody_sales_uk@bio-rad.com

Europe Tel: +49 (0) 89 8090 95 21
Fax: +49 (0) 89 8090 95 50
Email: antibody_sales_de@bio-rad.com

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