

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

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 product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

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 (NaN ₃)		
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](#) [Related reagents](#)

Entrez Gene:

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

RRID

AB_566483

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 10µl of the suggested working dilution to label 10⁶ cells in 100µl. The Fc region of monoclonal antibodies may bind to cells expressing low affinity Fc receptors. This may be reduced by using SeroBlock FcR ([BUF041A/BUF041B](#)).

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-15Rα, JNK, and NF-κB 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

This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended. This product is photosensitive and should be

protected from light.

Guarantee 12 months from date of despatch

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Health And Safety Information Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2363A647>
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Regulatory For research purposes only

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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)
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