

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 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	<table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>Alexa Fluor®647</td> <td>650</td> <td>665</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	Alexa Fluor®647	650	665
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 Related reagents Entrez Gene:						

Fusion Partners	Lymph node cells from immunised Sprague Dawley rats were fused with cells of the mouse PA1 myeloma cell line.
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Specificity	<p>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.</p> <p>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.</p> <p>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).</p>
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Flow Cytometry	<p>Use 10ul of the suggested working dilution to label 10⁶ cells in 100ul.</p> <p>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).</p>
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References	<ol style="list-style-type: none">1. Tanaka, T. <i>et al.</i> (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. <i>et al.</i> (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. <i>et al.</i> (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	<p>Store at +4°C or at -20°C if preferred.</p> <p>This product should be stored undiluted.</p> <p>Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.</p>
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Shelf Life	18 months from date of despatch.
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Health And Safety Information Material Safety Datasheet documentation #10041 available at:
10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

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