

Datasheet: MCA2363

Description:	RAT ANTI MOUSE CD122
Specificity:	CD122
Other names:	INTERLEUKIN-2 RECEPTOR BETA CHAIN
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	TM-BETA 1
Isotype:	IgG2b
Quantity:	0.25 mg

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	■			1/50 - 1/100
Immunohistology - Frozen			■	
Immunohistology - Paraffin			■	
ELISA			■	
Immunoprecipitation	■			
Western Blotting			■	

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 - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Cells from murine IL-2RB ⁺ transformant TART-mBeta.

**External Database
Links**

UniProt:

[P16297](#) [Related reagents](#)

Entrez Gene:

[16185](#) I12rb [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.

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.](#)

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

Shelf Life

18 months from date of despatch.

**Health And Safety
Information**

Material Safety Datasheet documentation #10040 available at:
10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	DyLight®800
Goat Anti Rat IgG (STAR73...)	RPE
Rabbit Anti Rat IgG (STAR21...)	HRP
Rabbit Anti Rat IgG (STAR17...)	FITC
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	DyLight®549 , DyLight®649 , DyLight®800
Goat Anti Rat IgG (STAR131...)	Alk. Phos. , Biotin
Goat Anti Rat IgG (STAR69...)	FITC
Goat Anti Rat IgG (STAR72...)	HRP

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