

Datasheet: MCA2691PB

Description:	RAT ANTI MOUSE CD4:Pacific Blue®
Specificity:	CD4
Other names:	L3T4 ANTIGEN, LY-4
Format:	Pacific Blue®
Product Type:	Monoclonal Antibody
Clone:	RM4-5
Isotype:	IgG2a
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 Pacific Blue - 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 (NaN ₃) 1% Bovine Serum Albumin
Approx. Protein Concentrations	IgG concentration 0.05 mg/ml
Immunogen	BALB/c mouse thymocytes

**External Database
Links**

UniProt:

[P06332](#) [Related reagents](#)

Entrez Gene:

[12504](#) Cd4 [Related reagents](#)

RRID

AB_2721777

Specificity

Rat anti Mouse CD4 antibody, clone RM4-5 detects mouse CD4, a 55 kDa protein also known as Ly-4 and L3T4. CD4 is a single chain transmembraneous glycoprotein which belongs to the immunoglobulin superfamily, and is primarily expressed on peripheral blood monocytes and tissue macrophages. CD4 is also expressed on a subpopulation of regulatory T cells (CD4⁺CD25⁺), which play a key role in the maintenance of self tolerance.

Rat anti Mouse CD4 antibody, clone RM4-5 can be used for *in vitro* blocking of ligand binding, as well as *in vitro* CD4⁺ T cell depletions.

Flow Cytometry

Use 10ul of the suggested working dilution to label 1x10⁶ 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. von Kutzleben, S. *et al.* (2017) Depletion of CD52-positive cells inhibits the development of central nervous system autoimmune disease, but deletes an immune-tolerance promoting CD8 T-cell population. Implications for secondary autoimmunity of alemtuzumab in multiple sclerosis. [Immunology. 150 \(4\): 444-55.](#)
2. Zamudio, F. *et al.* (2020) TDP-43 mediated blood-brain barrier permeability and leukocyte infiltration promote neurodegeneration in a low-grade systemic inflammation mouse model. [J Neuroinflammation. 17 \(1\): 283.](#)
3. Aloui, A. *et al.* (2023) AFM(1) Exposure in Male Balb/c Mice and Intervention Strategies Against Its Immuno-physiological toxicity using Clay Mineral and Lactic Acid Bacteria Alone or in Combination. [Immunopharmacol Immunotoxicol. : 1-32.](#)

Further Reading

1. Fehérvári, Z. & Sakaguchi, S. (2004) CD4⁺ Tregs and immune control. [J Clin Invest. 114 \(9\): 1209-17.](#)

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/MCA2691PB>
10041

Regulatory For research purposes only

Related Products

Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL:Pacific Blue® \(MCA1212PB\)](#)

Recommended Useful Reagents

[MOUSE SEROBLOCK FcR \(BUF041A\)](#)

[MOUSE SEROBLOCK FcR \(BUF041B\)](#)

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