

Datasheet: MCA2691P750

Description:	RAT ANTI MOUSE CD4:RPE-Alexa Fluor® 750
Specificity:	CD4
Other names:	L3T4 ANTIGEN, LY-4
Format:	RPE-ALEXA FLUOR® 750
Product Type:	Monoclonal Antibody
Clone:	RM4-5
Isotype:	IgG2a
Quantity:	100 TESTS

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 RPE-Alexa Fluor 750 - lyophilized

Reconstitution
 Reconstitute with 1.0 ml distilled water
 Care should be taken during reconstitution as the protein may appear as a film at the bottom of the vial. Bio-Rad recommend that the vial is gently mixed after reconstitution.

Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	RPE-Alexa Fluor®750 488nm laser	496	779
	RPE-Alexa Fluor®750 561nm laser	546	779

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 5% Sucrose
Immunogen	BALB/c mouse thymocytes
External Database Links	UniProt: P06332 Related reagents Entrez Gene: 12504 Cd4 Related reagents
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 transmembrane 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 <i>in vitro</i> blocking of ligand binding, as well as <i>in vitro</i> CD4 ⁺ T cell depletions.
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10 ⁶ 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. <i>et al.</i> (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. <i>et al.</i> (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. <i>et al.</i> (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	Prior to reconstitution store at +4°C. After reconstitution store at +4°C. DO NOT FREEZE. This product should be stored undiluted. 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 #20487 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2691P750>
20487

Regulatory For research purposes only

Related Products

Recommended Useful Reagents

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

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

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