

Datasheet: MCA2691AMO

Description:	RAT ANTI MOUSE CD4:Amethyst Orange
Specificity:	CD4
Other names:	L3T4 ANTIGEN, LY-4
Format:	Amethyst Orange
Product Type:	Monoclonal Antibody
Clone:	RM4-5
Isotype:	IgG2a
Quantity:	0.1 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	▪			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 Amethyst Orange - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	Amethyst Orange	405	540
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 0.1 mg/ml		

Immunogen	BALB/c mouse thymocytes
External Database Links	<p>UniProt: P06332 Related reagents</p> <p>Entrez Gene: 12504 Cd4 Related reagents</p>
Specificity	<p>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.</p> <p>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.</p>
Flow Cytometry	<p>Use 10ul of the suggested working dilution to label 1x10⁶ 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>
References	<ol style="list-style-type: none"> 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. 4. Camponeschi, C. <i>et al.</i> (2021) S100B Protein as a Therapeutic Target in Multiple Sclerosis: The S100B Inhibitor Arundic Acid Protects from Chronic Experimental Autoimmune Encephalomyelitis. Int J Mol Sci. 22 (24): 13558.
Further Reading	<ol style="list-style-type: none"> 1. Fehérvári, Z. & Sakaguchi, S. (2004) CD4⁺ Tregs and immune control. J Clin Invest. 114 (9): 1209-17.
Storage	<p>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.</p> <p>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</p>

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/MCA2691AMO
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Regulatory	For research purposes only
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Related Products

Recommended Useful Reagents

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

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

Product inquiries: www.bio-rad-antibodies.com/technical-support

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M385208:210513'

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