

## Datasheet: MCA2691SBUV740

<b>Description:</b>	RAT ANTI MOUSE CD4:StarBright UltraViolet 740
<b>Specificity:</b>	CD4
<b>Other names:</b>	L3T4 ANTIGEN, LY-4
<b>Format:</b>	StarBright UltraViolet 740
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	RM4-5
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	100 TESTS/0.5ml

## 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](http://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.

<b>Target Species</b>	Mouse		
<b>Product Form</b>	Purified IgG conjugated to StarBright UltraViolet 740 - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	StarBright UltraViolet 740	344	743
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant		
<b>Buffer Solution</b>	Phosphate buffered saline		
<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> ) 1% Bovine Serum Albumin 0.1% Pluronic F68 0.1% PEG 3350		

0.05% Tween 20

Approx. Protein Concentrations	For information on the concentration of our StarBright Dye conjugated reagents please visit our <a href="#">FAQ</a> page.
Immunogen	BALB/c mouse thymocytes
External Database Links	<p><b>UniProt:</b></p> <p><a href="#">P06332</a>   <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b></p> <p><a href="#">12504</a>   Cd4   <a href="#">Related reagents</a></p>
Specificity	<p><b>Rat anti Mouse CD4 antibody, clone RM4-5</b> 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<sup>+</sup>CD25<sup>+</sup>), 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<sup>+</sup> T cell depletions.</p>
Flow Cytometry	Use 5ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul. Best practices suggest a 5 minutes centrifugation at 6,000g prior to sample application.
References	<ol style="list-style-type: none"><li>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. <a href="#">Immunology. 150 (4): 444-55.</a></li><li>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. <a href="#">J Neuroinflammation. 17 (1): 283.</a></li><li>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. <a href="#">Immunopharmacol Immunotoxicol. : 1-32.</a></li><li>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. <a href="#">Int J Mol Sci. 22 (24): 13558.</a></li></ol>
Further Reading	1. Fehérvári, Z. & Sakaguchi, S. (2004) CD4 <sup>+</sup> Tregs and immune control. <a href="#">J Clin Invest. 114 (9): 1209-17.</a>
Storage	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted.
Guarantee	12 months from date of despatch

**Acknowledgements** This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign counterparts

**Health And Safety Information** Material Safety Datasheet documentation #20471 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2691SBUV740> 20471

**Regulatory** For research purposes only

## Related Products

### Recommended Useful Reagents

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

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

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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)  
'M435662:250224'

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