

## Datasheet: MCA2691SBUV445

**BATCH NUMBER 100006409**

<b>Description:</b>	RAT ANTI MOUSE CD4:StarBright UltraViolet 445
<b>Specificity:</b>	CD4
<b>Other names:</b>	L3T4 ANTIGEN, LY-4
<b>Format:</b>	StarBright UltraViolet 445
<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 445 - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	StarBright UltraViolet 445	347	440
<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</b>	0.09% Sodium Azide (NaN <sub>3</sub> )		
<b>Stabilisers</b>	1% Bovine Serum Albumin 0.1% Pluronic F68		

0.1% PEG 3350

0.05% Tween 20

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**Immunogen** BALB/c mouse thymocytes

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**External Database Links**

**UniProt:**

[P06332](#)

[Related reagents](#)

**Entrez Gene:**

[12504](#)

Cd4

[Related reagents](#)

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**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<sup>+</sup>CD25<sup>+</sup>), 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<sup>+</sup> T cell depletions.

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**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.

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**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.](#)
  4. Camponeschi, C. *et al.* (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.](#)
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**Further Reading**

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

Store at +4°C. DO NOT FREEZE.

This product should be stored undiluted.

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**Guarantee**

12 months from date of despatch

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**Acknowledgements**

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

counterparts

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**Health And Safety Information**      Material Safety Datasheet documentation #20471 available at:  
<https://www.bio-rad-antibodies.com/SDS/MCA2691SBUV445>  
20471

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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 \(BUF041B\)](#)

**North & South**    Tel: +1 800 265 7376

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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://www.bio-rad-antibodies.com/datasheets)

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