

Datasheet: MCA2691SBV515

### **BATCH NUMBER 100004324**

Description:	RAT ANTI MOUSE CD4:StarBright Violet 515
Specificity:	CD4
Other names:	L3T4 ANTIGEN, LY-4
Format:	StarBright Violet 515
Product Type:	Monoclonal Antibody
Clone:	RM4-5
Isotype:	IgG2a
Quantity:	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 <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	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 conjugate	ed to StarBright Violet	515 - liquid		
lax Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm		
	StarBright Violet 515	401	516		
eparation	Purified IgG prepared supernatant	I by affinity chromatog	raphy on Protein G		
fer Solution	Phosphate buffered s	aline			
servative	0.09% Sodium Azide	(NaN <sub>3</sub> )			
abilisers	1% Bovine Serum Alb	oumin			
	0.1% Pluronic F68	0.1% Pluronic F68			
	0.1% PEG 3350				

known as Ly-4 and L3T4. CD4 is a single chain transmembraneous glycoprotein white belongs to the immunoglobulin superfamily, and is primarily expressed on peripheral 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 ligan binding, as well as <i>in vitro</i> CD4+ T cell depletions.  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  1. Fehérvari, Z. & Sakaguchi, S. (2004) CD4+ Tregs and immune control. J Clin Inventive 114 (9): 1209-17. 2. von Kutzleben, S. et al. (2017) Depletion of CD52-positive cells inhibits the development of central nervous system autoimmune disease, but deletes an immunitolerance promoting CD8 T-cell population. Implications for secondary autoimmunity alemtuzumab in multiple solerosis. Immunology, 150 (4): 444-55. 3. 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.  Storage  Store at +4°C. DO NOT FREEZE. This product should be stored undiluted.  Guarantee  12 months from date of despatch  Acknowledgements  Material Safety Datasheet documentation #20438 available at: https://www.bio-rad-antibodies.com/SDS/MCA2691SBV515 20438						
Links    Doi:   P06332   Related reagents	Immunogen	BALB/c mouse thymocytes				
Entrez Gene:  12504 Cd4 Related reagents  Rat anti Mouse CD4 antibody, clone RM4-5 detects mouse CD4, a 55 kDa protein known as Ly-4 and L3T4. CD4 is a single chain transmembraneous glycoprotein who belongs to the immunoglobulin superfamily, and is primarily expressed on peripheral 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 ligan binding, as well as <i>in vitro</i> CD4+ T cell depletions.  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  1. Fehérvari, Z. & Sakaguchi, S. (2004) CD4+ Tregs and immune control. J Clin Invential (9): 1209-17. 2. 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 alemtuzumab in multiple sectorsis. Immunology, 150 (4): 444-55. 3. Zamudio, F. et al. (2020) TDP-43 mediated blood-brain barrier permeability and leukocyte infiltration promote neurodegeneration in a low-grade systemic inflammatic mouse model. J Neuroinflammation. 17 (1): 283.  Storage  Store at +4°C. DO NOT FREEZE. This product should be stored undiluted.  Guarantee  12 months from date of despatch  Acknowledgements  Material Safety Datasheet documentation #20438 available at: https://www.bio-rad-antibodies.com/SDS/MCA2691SBV515 20438						
known as Ly-4 and L3T4. CD4 is a single chain transmembraneous glycoprotein white belongs to the immunoglobulin superfamily, and is primarily expressed on peripheral 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 ligan binding, as well as <i>in vitro</i> CD4+ T cell depletions.  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  1. Fehérvari, Z. & Sakaguchi, S. (2004) CD4+ Tregs and immune control. J Clin Inventive 114 (9): 1209-17. 2. von Kutzleben, S. et al. (2017) Depletion of CD52-positive cells inhibits the development of central nervous system autoimmune disease, but deletes an immunitolerance promoting CD8 T-cell population. Implications for secondary autoimmunity alemtuzumab in multiple sclerosis. Immunology, 150 (4): 444-55. 3. 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.  Storage  Store at +4°C. DO NOT FREEZE. This product should be stored undiluted.  Guarantee  12 months from date of despatch  Acknowledgements  Material Safety Datasheet documentation #20438 available at: https://www.bio-rad-antibodies.com/SDS/MCA2691SBV515 20438		Entrez Gene:				
binding, as well as <i>in vitro</i> CD4+ T cell depletions.  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  1. Fehérvari, Z. & Sakaguchi, S. (2004) CD4+ Tregs and immune control. J Clin Invention 114 (9): 1209-17. 2. von Kutzleben, S. et al. (2017) Depletion of CD52-positive cells inhibits the development of central nervous system autoimmune disease, but deletes an immunity alemtuzumab in multiple sclerosis. Immunology. 150 (4): 444-55. 3. 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.  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  Material Safety Datasheet documentation #20438 available at: https://www.bio-rad-antibodies.com/SDS/MCA2691SBV515 20438	Specificity	regulatory T cells (CD4 <sup>+</sup> CD25 <sup>+</sup> ), which play a key role in the maintenance of self				
suggest a 5 minutes centrifugation at 6,000g prior to sample application.  References  1. Fehérvari, Z. & Sakaguchi, S. (2004) CD4+ Tregs and immune control. J Clin Investita (9): 1209-17. 2. 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 alemtuzumab in multiple sclerosis. Immunology. 150 (4): 444-55. 3. 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.  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  Material Safety Datasheet documentation #20438 available at: https://www.bio-rad-antibodies.com/SDS/MCA2691SBV515 20438		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.				
114 (9): 1209-17. 2. von Kutzleben, S. et al. (2017) Depletion of CD52-positive cells inhibits the development of central nervous system autoimmune disease, but deletes an immunitolerance promoting CD8 T-cell population. Implications for secondary autoimmunity alemtuzumab in multiple sclerosis. Immunology. 150 (4): 444-55. 3. 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.  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 #20438 available at: https://www.bio-rad-antibodies.com/SDS/MCA2691SBV515 20438	Flow Cytometry					
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 #20438 available at:  https://www.bio-rad-antibodies.com/SDS/MCA2691SBV515 20438	References	<ol> <li>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">Immunology.150</a> (4): 444-55.</li> <li>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</li> </ol>				
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 #20438 available at: https://www.bio-rad-antibodies.com/SDS/MCA2691SBV515 20438	Storage					
Counterparts  Health And Safety Information  Material Safety Datasheet documentation #20438 available at:  https://www.bio-rad-antibodies.com/SDS/MCA2691SBV515 20438	Guarantee	12 months from date of despatch				
Information  https://www.bio-rad-antibodies.com/SDS/MCA2691SBV515 20438	Acknowledgements	This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign counterparts				
Regulatory For research purposes only		https://www.bio-rad-antibodies.com/SDS/MCA2691SBV515				
Fullescatuli purpuses utily	Regulatory	For research purposes only				

# **Related Products**

# **Recommended Useful Reagents**

MOUSE SEROBLOCK FcR (BUF041A)
MOUSE SEROBLOCK FcR (BUF041B)

 North & South
 Tel: +1 800 265 7376
 Worldwide
 Tel: +44 (0)1865 852 700
 Europe
 Tel: +49 (0) 89 8090 95 21

 America
 Fax: +1 919 878 3751
 Fax: +44 (0)1865 852 739
 Fax: +49 (0) 89 8090 95 50

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M373253:200901'

### Printed on 09 Apr 2025

© 2025 Bio-Rad Laboratories Inc | Legal | Imprint