

## Datasheet: MCA2690A488

<b>Description:</b>	HAMSTER ANTI MOUSE CD3:Alexa Fluor®488
<b>Specificity:</b>	CD3
<b>Format:</b>	ALEXA FLUOR® 488
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	145-2C11
<b>Isotype:</b>	IgG
<b>Quantity:</b>	1 ml

### 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 Alexa Fluor 488 - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	Alexa Fluor®488	495	519
<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		
<b>Approx. Protein Concentrations</b>	IgG concentration 0.05mg/ml		
<b>Immunogen</b>	H-2K <sup>b</sup> - specific mouse cytotoxic T lymphocyte clone BM10-37.		

<b>External Database Links</b>	<b>UniProt:</b> <a href="#">P22646</a> <a href="#">Related reagents</a>  <b>Entrez Gene:</b> <a href="#">12501</a> Cd3e <a href="#">Related reagents</a>
<b>RRID</b>	AB_10707931
<b>Fusion Partners</b>	Spleen cells from hyperimmunized Armenian hamsters ( <i>Cricetulus migratorius</i> ) were fused with cells of the murine SP2/0 myeloma.
<b>Specificity</b>	<p><b>Hamster anti Mouse CD3 antibody, clone 145-2C11</b> detects CD3 epsilon (CD3ε), a ~20 kDa transmembrane protein also known as CD3 or T3. CD3ε is a member of the CD3 complex which consists of four subunits, gamma, delta, epsilon and zeta, and these are associated to the T cell receptor (TCR). TCR plays a critical role in T cell development and function, and is responsible for ligand recognition. It interacts non-covalently with the CD3 dimers delta/epsilon, gamma/epsilon and zeta/zeta which transduce signals from the TCR into the cell.</p> <p>CD3ε is primarily expressed on T cells, NK-T cells, and at different levels on thymocytes during T cell differentiation.</p> <p>Hamster anti Mouse CD3 antibody, clone 145-2C11 is useful for <i>in vitro</i> blocking and activation assays, as well as apoptosis induction and <i>in vitro</i> T cell depletions.</p>
<b>Flow Cytometry</b>	<p>Use 10ul of the suggested working dilution to label 1x10<sup>6</sup> 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 (<a href="#">BUF041A/B</a>).</p>
<b>References</b>	<ol style="list-style-type: none"> <li>Payer, E. <i>et al.</i> (1991) Circulating CD3+/T cell receptor V γ 3+ fetal murine thymocytes home to the skin and give rise to proliferating dendritic epidermal T cells. <a href="#">J Immunol. 146 (8): 2536-43.</a></li> <li>Salvadori, S. <i>et al.</i> (1994) Abnormal signal transduction by T cells of mice with parental tumors is not seen in mice bearing IL-2-secreting tumors. <a href="#">J Immunol. 153 (11): 5176-82.</a></li> <li>Lees, C.W. <i>et al.</i> (2008) Analysis of germline GLI1 variation implicates hedgehog signalling in the regulation of intestinal inflammatory pathways. <a href="#">PLoS Med. 5: e239.</a></li> <li>McDole JR <i>et al.</i> (2010) Rapid formation of extended processes and engagement of Theiler's virus-infected neurons by CNS-infiltrating CD8 T cells. <a href="#">Am J Pathol. 177 (4): 1823-33.</a></li> <li>Certo, M. <i>et al.</i> (2015) Activation of RXR/PPARγ underlies neuroprotection by bexarotene in ischemic stroke. <a href="#">Pharmacol Res. 102: 298-307.</a></li> <li>Klemann, C. <i>et al.</i> (2016) Interleukin 17, Produced by γδδ T Cells, Contributes to Hepatic Inflammation in a Mouse Model of Biliary Atresia and Is Increased in Livers of Patients. <a href="#">Gastroenterology. 150 (1): 229-241.e5.</a></li> <li>Parang, B. <i>et al.</i> (2016) Myeloid translocation genes differentially regulate colorectal cancer programs. <a href="#">Oncogene. 35 (49): 6341-9.</a></li> </ol>

8. Yu, Y. *et al.* (2017) Conventional alpha beta ( $\alpha\beta$ ) T cells do not contribute to acute intestinal ischemia-reperfusion injury in mice. [PLoS One. 12 \(7\): e0181326.](#)
9. Schuhmann, M.K. *et al.* (2017) Blocking of platelet glycoprotein receptor Ib reduces "thrombo-inflammation" in mice with acute ischemic stroke. [J Neuroinflammation. 14 \(1\): 18.](#)
10. Perrotta, M. *et al.* (2018) Deoxycorticosterone acetate-salt hypertension activates placental growth factor in the spleen to couple sympathetic drive and immune system activation. [Cardiovasc Res. 114 \(3\): 456-67.](#)
11. Ohmura, Y. *et al.* (2021) Natural Killer T Cells Are Involved in Atherosclerotic Plaque Instability in Apolipoprotein-E Knockout Mice. [Int J Mol Sci. 22\(22\):12451.](#)
12. Shanaki-Bavarsad, M. *et al.* (2022) Astrocyte-targeted Overproduction of IL-10 Reduces Neurodegeneration after TBI. [Exp Neurobiol. 31 \(3\): 173-195.](#)

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**Storage** 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.

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 protected from light.

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**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/MCA2690A488>  
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**Regulatory** For research purposes only

## Related Products

### Recommended Negative Controls

[HAMSTER \(ARMENIAN\) IgG NEGATIVE CONTROL:Alexa Fluor® 488 \(MCA2356A488\)](#)

### Recommended Useful Reagents

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

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

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