

## Datasheet: MCA2690

**BATCH NUMBER 162079**

<b>Description:</b>	HAMSTER ANTI MOUSE CD3
<b>Specificity:</b>	CD3
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	145-2C11
<b>Isotype:</b>	IgG
<b>Quantity:</b>	0.25 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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			1/25 - 1/200
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting	▪			
Immunofluorescence	▪			
Functional Assays			▪	

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 - liquid
<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> )

<b>Carrier Free</b>	Yes
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	H-2K <sup>b</sup> - specific mouse cytotoxic T lymphocyte clone BM10-37.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P22646</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">12501</a> Cd3e    <a href="#">Related reagents</a></p>
<b>RRID</b>	AB_905951
<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>1. Leo, O. <i>et al.</i> (1987) Identification of a monoclonal antibody specific for a murine T3 polypeptide. <a href="#">Proc Natl Acad Sci U S A. 84 (5): 1374-8.</a></li> <li>2. 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>3. 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>4. Podd BS <i>et al.</i> (2006) T cells in cryptopatch aggregates share TCR γ variable region junctional sequences with γδ T cells in the small intestinal epithelium of mice. <a href="#">J Immunol. 176 (11): 6532-42.</a></li> </ol>

5. McDole JR *et al.* (2010) Rapid formation of extended processes and engagement of Theiler's virus-infected neurons by CNS-infiltrating CD8 T cells. [Am J Pathol. 177 \(4\): 1823-33.](#)
6. Lees, C.W. *et al.* (2008) Analysis of germline GLI1 variation implicates hedgehog signalling in the regulation of intestinal inflammatory pathways. [PLoS Med. 5: e239.](#)
7. Klemann, C. *et al.* (2015) Interleukin-17, Produced by  $\gamma\delta$ -T Cells, Contributes to Hepatic Inflammation in a Mouse Model of Biliary Atresia and is Increased in Livers of Patients. [Gastroenterology. pii: S0016-5085\(15\)01352-9.](#)
8. Parang, B. *et al.* (2016) Myeloid translocation genes differentially regulate colorectal cancer programs. [Oncogene. 35 \(49\): 6341-9.](#)
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. 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.](#)
11. Certo, M. *et al.* (2015) Activation of RXR/PPAR $\gamma$  underlies neuroprotection by bexarotene in ischemic stroke. [Pharmacol Res. 102: 298-307.](#)
12. 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.](#)
13. 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.](#)
14. Shanaki-Bavarsad, M. *et al.* (2022) Astrocyte-targeted Overproduction of IL-10 Reduces Neurodegeneration after TBI. [Exp Neurobiol. 31 \(3\): 173-195.](#)

---

**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.

---

**Guarantee** 12 months from date of despatch

---

**Health And Safety Information** Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2690>  
10040

---

**Regulatory** For research purposes only

## Related Products

### Recommended Secondary Antibodies

Goat Anti Hamster IgG (STAR104...) [DyLight®550](#), [DyLight®650](#), [DyLight®800](#),  
[FITC](#)

Goat Anti Hamster IgG (STAR79...) [Biotin](#), [FITC](#), [HRP](#)

### Recommended Negative Controls

[HAMSTER \(ARMENIAN\) IgG NEGATIVE CONTROL \(MCA2356\)](#)

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

**America** Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto:antibody_sales_us@bio-rad.com)

**Worldwide**

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: [antibody\\_sales\\_uk@bio-rad.com](mailto:antibody_sales_uk@bio-rad.com)

**Europe**

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: [antibody\\_sales\\_de@bio-rad.com](mailto:antibody_sales_de@bio-rad.com)

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)

'M383897:210513'

**Printed on 25 Mar 2023**

---

© 2023 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)