

Datasheet: MCA2690GA

BATCH NUMBER 166781

Description:	HAMSTER ANTI MOUSE CD3
Specificity:	CD3
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	145-2C11
Isotype:	IgG
Quantity:	0.1 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.

	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.

Target Species	Mouse
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃)

Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0mg/ml
Immunogen	H-2K ^b - specific mouse cytotoxic T lymphocyte clone BM10-37.
External Database Links	<p>UniProt:</p> <p>P22646 Related reagents</p> <p>Entrez Gene:</p> <p>12501 Cd3e Related reagents</p>
RRID	AB_10672024
Fusion Partners	Spleen cells from hyperimmunized Armenian hamsters (<i>Cricetulus migratorius</i>) were fused with cells of the murine SP2/0 myeloma.
Specificity	<p>Hamster anti Mouse CD3 antibody, clone 145-2C11 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>
Flow Cytometry	<p>Use 10ul of the suggested working dilution to label 1x10⁶ 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 (BUF041A/B).</p>
References	<ol style="list-style-type: none"> 1. 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. J Immunol. 146 (8): 2536-43. 2. 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. J Immunol. 153 (11): 5176-82. 3. Lees, C.W. <i>et al.</i> (2008) Analysis of germline GLI1 variation implicates hedgehog signalling in the regulation of intestinal inflammatory pathways. PLoS Med. 5: e239. 4. 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. Am J Pathol. 177 (4): 1823-33.

5. Certo, M. *et al.* (2015) Activation of RXR/PPAR γ underlies neuroprotection by bexarotene in ischemic stroke. [Pharmacol Res. 102: 298-307.](#)
6. Klemann, C. *et al.* (2016) 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. 150 \(1\): 229-241.e5.](#)
7. Parang, B. *et al.* (2016) Myeloid translocation genes differentially regulate colorectal cancer programs. [Oncogene. 35 \(49\): 6341-9.](#)
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. Recasens, M. *et al.* (2019) Astrocyte-targeted IL-10 production decreases proliferation and induces a downregulation of activated microglia/macrophages after PPT. [Glia. 67 \(4\): 741-58.](#)
12. 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.](#)
13. Möhn, N. *et al.* (2020) Synthetic retinoid AM80 inhibits IL-17 production of gamma delta T cells and ameliorates biliary atresia in mice. [Liver Int. 40 \(12\): 3031-41.](#)
14. Shanaki-Bavarsad, M. *et al.* (2022) Astrocyte-targeted Overproduction of IL-10 Reduces Neurodegeneration after TBI. [Exp Neurobiol. 31 \(3\): 173-195.](#)
15. Manich, G. *et al.* (2024) Chronic IL-6 overproduction induces a tolerogenic response in aged mice after peripheral nerve injury [13 Mar \[Epub ahead of print\].](#)

Storage	<p>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.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.</p>
Guarantee	12 months from date of despatch
Health And Safety Information	<p>Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA2690GA</p> <p>10040</p>
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 \(MCA2356\)](#)

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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

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