

Datasheet: MCA2690B

Description:	HAMSTER ANTI MOUSE CD3:Biotin
Specificity:	CD3
Format:	Biotin
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	▪			

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 conjugated to Biotin - 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)
Approx. Protein Concentrations	IgG concentration 0.5mg/ml
Immunogen	H-2K ^b - specific mouse cytotoxic T lymphocyte clone BM10-37.
External Database Links	UniProt:

Entrez Gene:

[12501](#) Cd3e [Related reagents](#)

RRID AB_905946

Fusion Partners Spleen cells from hyperimmunized Armenian hamsters (*Cricetulus migratorius*) were fused with cells of the murine SP2/0 myeloma.

Specificity **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.

CD3ε is primarily expressed on T cells, NK-T cells, and at different levels on thymocytes during T cell differentiation.

Hamster anti Mouse CD3 antibody, clone 145-2C11 is useful for *in vitro* blocking and activation assays, as well as apoptosis induction and *in vitro* T cell depletions.

Flow Cytometry Use 10ul of the suggested working dilution to label 1x10⁶ cells in 100ul.

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](#)).

References

1. Leo, O. *et al.* (1987) Identification of a monoclonal antibody specific for a murine T3 polypeptide. [Proc Natl Acad Sci U S A. 84 \(5\): 1374-8.](#)
2. Payer, E. *et al.* (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.](#)
3. Salvadori, S. *et al.* (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.](#)
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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.](#)
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7. Klemann, C. *et al.* (2015) Interleukin-17, Produced by γδ-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 1b 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 γ 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.](#)

Storage	Store at +4°C or at -20°C if preferred. Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
Guarantee	18 months from date of despatch.
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: 10040: https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf
Regulatory	For research purposes only

Related Products

Recommended Useful Reagents

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

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

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: 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	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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