Datasheet: MCA2690T

Description:	HAMSTER ANTI MOUSE CD3
Specificity:	CD3
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	145-2C11
Isotype:	IgG
Quantity:	25 µg

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 1.0 mg/ml
Immunogen	H-2K^{b} - specific mouse cytotoxic T lymphocyte clone BM10-37.
External Database Links	**UniProt:** P22646 Related reagents **Entrez Gene:** 12501 Cd3e Related reagents
RRID	AB_1101793
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 1x10^{6} 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. 4. Podd BS *et al.* (2006) T cells in cryptopatch aggregates share TCR γ variable region junctional sequences with γδ T cells in the small intestinal epithelium of mice. J Immunol. 176 (11): 6532-42.

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 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 Ib reduces "thrombo-inflammation" in mice with acute ischemic stroke. J Neuroinflammation. 14 (1): 18.
10. Yu, Y. *et al.* (2017) Conventional alpha beta (αβ) 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/PPARγ 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/MCA2690T 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

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

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

'M384453:210513'

Printed on 25 Mar 2023