

Datasheet: MCA372G

Description:	MOUSE ANTI RAT CD4 (DOMAIN 1)
Specificity:	CD4 (DOMAIN 1)
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	OX-38
Isotype:	IgG2a
Quantity:	0.25 mg

Product Details

RRID AB_322838

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	▪			1/100 - 1/200
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

Target Species Rat

Product Form Purified IgG - liquid

Preparation Purified IgG prepared by affinity chromatography on Protein G

Buffer Solution Phosphate buffered saline

Preservative Stabilisers 0.09% Sodium Azide

Carrier Free Yes

Approx. Protein Concentrations IgG concentration 1.0 mg/ml

Immunogen MLR generated rat T cells.

**External Database
Links**

UniProt:

[P05540](#) [Related reagents](#)

Entrez Gene:

[24932](#) Cd4 [Related reagents](#)

Fusion Partners

Spleen cells from immunised mice were fused with cells of the mouse NS1 myeloma cell line.

Specificity

Mouse anti Rat CD4 (Domain 1) antibody, clone OX-38 recognizes the rat CD4 cell surface antigen, also known as W3/25 antigen or T-cell surface antigen T4/Leu-3. CD4 is a 430 amino acid ~55 kDa single pass type I transmembrane glycoprotein expressed by T helper cells, monocytes and macrophages.

Clone OX-38 competes for binding with Mouse anti Rat CD4 antibody, clone W3/25 ([MCA55R](#)).

Mouse anti Rat CD4 (Domain 1) antibody, clone OX-38 has been utilized successfully for the *in vitro* depletion of T helper cells from slice cultures in studies looking at myelin loss in multiple sclerosis, the observed disruption being abrogated in these experimental conditions by T-cell depletion ([Pusic et al. 2015](#)).

References

1. Jefferies, W.A. *et al.* (1985) Authentic T helper CD4 (W3/25) antigen on rat peritoneal macrophages. [J Exp Med. 162 \(1\): 117-27.](#)
2. Barclay, A.N. (1981) The localization of populations of lymphocytes defined by monoclonal antibodies in rat lymphoid tissues. [Immunology. 42 \(4\): 593-600.](#)
3. Thomas, M.L. & Green, J.R. (1983) Molecular nature of the W3/25 and MRC OX-8 marker antigens for rat T lymphocytes: comparisons with mouse and human antigens. [Eur J Immunol. 13 \(10\): 855-8.](#)
4. Hall, B.M. *et al.* (1998) Anti-CD4 monoclonal antibody-induced tolerance to MHC-incompatible cardiac allografts maintained by CD4+ suppressor T cells that are not dependent upon IL-4. [J Immunol. 161 \(10\): 5147-56.](#)
5. Kitazawa, Y.*et al.* (2015) A novel multicolor immunostaining method using ethynyl deoxyuridine for analysis of *in situ* immunoproliferative response. [Histochem Cell Biol. 144 \(3\): 195-208.](#)
6. Pusic, A.D. *et al.* (2015) Spreading depression transiently disrupts myelin via interferon-gamma signaling. [Exp Neurol. 264: 43-54.](#)
7. Ueta, H. *et al.* (2018) Single blood transfusion induces the production of donor-specific alloantibodies and regulatory T cells mainly in the spleen. [Int Immunol. 30 \(2\): 53-67.](#)

Storage

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. 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 Secondary Antibodies

Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Rabbit Anti Mouse IgG (STAR8...)	DyLight@800
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (STAR70...)	FITC
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Human Anti Mouse IgG2a (HCA037...)	FITC , HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight@488 , DyLight@680 , DyLight@800 , FITC , HRP

Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL \(MCA1210\)](#)

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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