

## Datasheet: MCA372G

### BATCH NUMBER 1602

<b>Description:</b>	MOUSE ANTI RAT CD4 (DOMAIN 1)
<b>Specificity:</b>	CD4 (DOMAIN 1)
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	OX-38
<b>Isotype:</b>	IgG2a
<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	▪			1/100 - 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.

<b>Target Species</b>	Rat
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide
<b>Carrier Free</b>	Yes

<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	MLR generated rat T cells.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P05540</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">24932</a> Cd4    <a href="#">Related reagents</a></p>
<b>RRID</b>	AB_322838
<b>Fusion Partners</b>	Spleen cells from immunised mice were fused with cells of the mouse NS1 myeloma cell line.
<b>Specificity</b>	<p><b>Mouse anti Rat CD4 (Domain 1) antibody, clone OX-38</b> 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.</p> <p>Clone OX-38 competes for binding with Mouse anti Rat CD4 antibody, clone W3/25 (<a href="#">MCA55R</a>).</p> <p>Mouse anti Rat CD4 (Domain 1) antibody, clone OX-38 has been utilized successfully for the <i>in vitro</i> 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 (<a href="#">Pusic <i>et al.</i> 2015</a>).</p>
<b>References</b>	<ol style="list-style-type: none"> <li>1. Jefferies, W.A. <i>et al.</i> (1985) Authentic T helper CD4 (W3/25) antigen on rat peritoneal macrophages. <a href="#">J Exp Med. 162 (1): 117-27.</a></li> <li>2. Barclay, A.N. (1981) The localization of populations of lymphocytes defined by monoclonal antibodies in rat lymphoid tissues. <a href="#">Immunology. 42 (4): 593-600.</a></li> <li>3. Thomas, M.L. &amp; 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. <a href="#">Eur J Immunol. 13 (10): 855-8.</a></li> <li>4. Hall, B.M. <i>et al.</i> (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. <a href="#">J Immunol. 161 (10): 5147-56.</a></li> <li>5. Kitazawa, Y.<i>et al.</i> (2015) A novel multicolor immunostaining method using ethynyl deoxyuridine for analysis of <i>in situ</i> immunoproliferative response. <a href="#">Histochem Cell Biol. 144 (3): 195-208.</a></li> <li>6. Pusic, A.D. <i>et al.</i> (2015) Spreading depression transiently disrupts myelin via interferon-gamma signaling. <a href="#">Exp Neurol. 264: 43-54.</a></li> <li>7. Ueta, H. <i>et al.</i> (2018) Single blood transfusion induces the production of donor-specific alloantibodies and regulatory T cells mainly in the spleen. <a href="#">Int Immunol. 30 (2): 53-67.</a></li> </ol>

**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.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10040 available at:  
<https://www.bio-rad-antibodies.com/SDS/MCA372G>  
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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...) [HRP](#)  
Rabbit Anti Mouse IgG (STAR12...) [RPE](#)  
Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)  
Goat Anti Mouse IgG (STAR76...) [RPE](#)  
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)  
Goat Anti Mouse IgG (STAR70...) [FITC](#)  
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#),  
[DyLight®650](#), [DyLight®680](#), [DyLight®800](#),  
[FITC](#), [HRP](#)  
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)  
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)

### Recommended Negative Controls

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

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

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

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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](https://www.bio-rad-antibodies.com/datasheets)

'M367646:200529'

Printed on 13 Sep 2023

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