

## Datasheet: MCA589R

**BATCH NUMBER 1603**

<b>Description:</b>	MOUSE ANTI RAT CD45
<b>Specificity:</b>	CD45
<b>Other names:</b>	LCA
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	OX-29
<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	▪			1/10 - 1/50
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 from tissue culture supernatant
<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>	L-CA (CD45)
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P04157</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">24699</a> Ptprc    <a href="#">Related reagents</a></p>
<b>RRID</b>	AB_931751
<b>Fusion Partners</b>	Fusion of cells from NSO mouse myeloma line with spleen cells from BALB/c mice immunised with purified LCA.
<b>Specificity</b>	<p><b>Mouse anti Rat CD45 antibody, clone OX-29</b> recognizes rat CD45, also known as Receptor-type tyrosine-protein phosphatase C, Leukocyte common antigen (LCA) or T200, expressed on all rat leukocytes. CD45 is a single pass, type I transmembrane glycoprotein of ~180-240kDa depending on the isoform and degree of glycosylation. Rat CD45 contains two intracellular <a href="#">tyrosine-protein phosphatase domains</a> and at least two extracellular <a href="#">fibronectin type-III domains</a> (Uniprot Acc no: <a href="#">P04157</a>), although the existence of a third similar domain has previously been proposed (<a href="#">Symons et al. 1999</a>).</p> <p>Mouse anti Rat CD45 antibody, clone OX-29 has been reported as recognizing a monomorphic determinant present on all allogenic forms of the rat CD45 antigen (<a href="#">Symons and Barclay 2000</a>). Epitope mapping further indicates that the OX-29 clone binds to a determinant located within the membrane distal two domains of CD45 (<a href="#">Symons, et al. 1999</a>).</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
<b>References</b>	<ol style="list-style-type: none"> <li>1. Woollett, G.R. <i>et al.</i> (1985) Molecular and antigenic heterogeneity of the rat leukocyte-common antigen from thymocytes and T and B lymphocytes. <a href="#">Eur J Immunol. 15 (2): 168-73.</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. Symons, A. <i>et al.</i> (1999) Domain organization of the extracellular region of CD45. <a href="#">Protein Eng. 12 (10): 885-92.</a></li> <li>4. Zhou, L. <i>et al.</i> (2014) Purification of endothelial cells from rodent brain by immunopanning. <a href="#">Cold Spring Harb Protoc. 2014 (1): 65-77.</a></li> <li>5. Barres, B.A. (2014) Designing and troubleshooting immunopanning protocols for purifying neural cells. <a href="#">Cold Spring Harb Protoc. 2014 (12): 1342-7.</a></li> </ol>
<b>Storage</b>	Store at +4°C for one month or at -20°C for longer.

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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<b>Guarantee</b>	12 months from date of despatch
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<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA589R">https://www.bio-rad-antibodies.com/SDS/MCA589R</a> 10040
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<b>Regulatory</b>	For research purposes only
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## Related Products

### Recommended Secondary Antibodies

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

### Recommended Negative Controls

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

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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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)

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