

## Datasheet: MCA453GA

<b>Description:</b>	MOUSE ANTI RAT TCR ALPHA/BETA
<b>Specificity:</b>	TCR ALPHA/BETA
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	R73
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			1/50 - 1/100
Immunohistology - Frozen	▪			1/10 - 1/100
Immunohistology - Paraffin			▪	
Immunohistology - Resin			▪	
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>Species Cross Reactivity</b>	<p>Reacts with: Monkey, Cynomolgus monkey</p> <p><b>N.B.</b> Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.</p>
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Rat T blasts and erythrocytes.
RRID	AB_567214
Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells of the X63.Ag8.653 mouse myeloma cell line.
Specificity	<p><b>Mouse anti Rat TCR alpha/beta antibody, clone R73</b> recognizes a constant determinant on the beta chain of the rat alpha/beta T cell receptor, expressed by 97% of peripheral rat T cells as defined by the OX-52 marker. R73 is mitogenic for unseparated spleen cells and for purified T cells. In the rat thymus, mature medullary cells express the R73 determinant at the same levels as peripheral T cells, whereas 94% of CD4 - CD8 - thymocytes are R73 negative.</p> <p>Mouse anti Rat TCR alpha/beta antibody, clone R73 is reported to stimulate adhesion between Thymic Dendritic Cells and Thymocytes (<a href="#">Colic et al. 2010</a>).</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 100ul of whole blood or 10 <sup>6</sup> cells in 100ul. Method sheets are available on request.
References	<ol style="list-style-type: none"> <li>Tomida, S. <i>et al.</i> (1994) Intercellular adhesion molecule-1 and leukocyte function-associated antigen-1 are involved in protection mediated by CD3+TCR alpha beta- T cells at the early stage after infection with <i>Listeria monocytogenes</i> in rats. <a href="#">Int Immunol. 6 (7): 955-61.</a></li> <li>Colić, M. <i>et al.</i> (1996) Mechanisms involved in the binding of thymocytes to rat thymic dendritic cells. <a href="#">Dev Immunol. 5 (1): 37-51.</a></li> <li>Kanellis, J. <i>et al.</i> (2010) JNK signalling in human and experimental renal ischaemia/reperfusion injury. <a href="#">Nephrol Dial Transplant. 25: 2898-908.</a></li> <li>Nave, H. <i>et al.</i> (2008) Resistance of Janus kinase-2 dependent leptin signaling in natural killer (NK) cells: a novel mechanism of NK cell dysfunction in diet-induced obesity. <a href="#">Endocrinology. 149: 3370-8.</a></li> <li>Tsuchida, M. <i>et al.</i> (1994) Identification of CD4- CD8- alpha beta T cells in the subarachnoid space of rats with experimental autoimmune encephalomyelitis. A possible route by which effector cells invade the lesions. <a href="#">Immunology. 81 (3): 420-7.</a></li> <li>Matsumoto, Y. <i>et al.</i> (1994) Successful prevention and treatment of autoimmune encephalomyelitis by short-term administration of anti-T-cell receptor alpha beta antibody. <a href="#">Immunology. 81 (1): 1-7.</a></li> <li>Pilipović, I. <i>et al.</i> (2010) Glucocorticoids, master modulators of the thymic</li> </ol>

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**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.

<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA453GA">https://www.bio-rad-antibodies.com/SDS/MCA453GA</a> 10040
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Goat Anti Mouse IgG IgA IgM (STAR87...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (STAR76...)	<a href="#">RPE</a>
Goat Anti Mouse IgG (STAR70...)	<a href="#">FITC</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 (STAR9...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (STAR77...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR13...)	<a href="#">HRP</a>

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA1209\)](#)

<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://bio-rad-antibodies.com/datasheets)  
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