

## Datasheet: MCA5791GA

**BATCH NUMBER 170173**

<b>Description:</b>	RAT ANTI MOUSE TIM-4
<b>Specificity:</b>	TIM-4
<b>Other names:</b>	T-CELL IMMUNOGLOBULIN MUCIN 4
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	RMT4-54
<b>Isotype:</b>	IgG2a
<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	▪			1/25 - 1/200
Immunohistology - Frozen			▪	
Immunohistology - Paraffin	▪			
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting			▪	
Immunofluorescence	▪			

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>	Mouse
<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</b>	0.09% Sodium Azide

## Stabilisers

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**Carrier Free** Yes

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**Approx. Protein Concentrations** IgG concentration 1.0mg/ml

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**Immunogen** Tim-4-Ig, consisting of amino acids 1-288 of mouse Tim-4, coupled with the Fc portion of mouse IgG2a.

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## External Database Links

### UniProt:

[Q6U7R4](#) [Related reagents](#)

### Entrez Gene:

[276891](#) Timd4 [Related reagents](#)

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**Synonyms** Tim4

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**Fusion Partners** Lymph node cells from immunised SD rats were fused with cells of the P3U1 myeloma cell line.

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**Specificity** **Rat anti Mouse TIM-4 antibody, clone RMT4-54** recognizes mouse Tim-4 (T-cell immunoglobulin mucin 4), a transmembrane glycoprotein and member of the immunoglobulin superfamily, exclusively expressed by antigen-presenting cells, which acts as the natural ligand of Tim-1, involved in T-cell expansion and cytokine production.

Tim-4 is necessary for the phagocytosis of apoptotic cells by peritoneal macrophages ([Nishi et al. 2014](#)) and interaction between Tim-1 on Th2 cells and Tim-4 on DCs, enhances Th2 cell function. The TIM-4 gene locus is associated with predisposition to asthma in both mice and humans and may be considered as a candidate disease gene for asthma.

Rat anti Mouse TIM-4 antibody, clone RMT4-54 inhibits the efficient *in vitro* phagocytosis of apoptotic cells by resident peritoneal Mac1<sup>+</sup> cells), but not inflammatory peritoneal exudate Mac1<sup>+</sup> cells ([Nakayama et al. 2009](#)).

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**Flow Cytometry** Use 10ul of the suggested working dilution to label 10<sup>6</sup> cells in 100ul.

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**Histology Positive Control Tissue** Mouse spleen

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**Further Reading** 1. Freeman, G.J. et al. (2010) TIM genes: a family of cell surface phosphatidylserine receptors that regulate innate and adaptive immunity. [Immunol Rev. 235 \(1\): 172-89.](#)

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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.

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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/MCA5791GA">https://www.bio-rad-antibodies.com/SDS/MCA5791GA</a>
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<b>Regulatory</b>	For research purposes only
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## Related Products

### Recommended Secondary Antibodies

Goat Anti Rat IgG (STAR69...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR73...)	<a href="#">RPE</a>
Rabbit Anti Rat IgG (STAR17...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR131...)	<a href="#">Alk. Phos.</a> , <a href="#">Biotin</a>
Goat Anti Rat IgG (STAR72...)	<a href="#">HRP</a>
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	<a href="#">DyLight®650</a> , <a href="#">DyLight®800</a>
Rabbit Anti Rat IgG (STAR21...)	<a href="#">HRP</a>
Rabbit Anti Rat IgG (STAR16...)	<a href="#">DyLight®800</a>

### Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL \(MCA1212\)](#)

### Recommended Useful Reagents

[ANTIGEN RETRIEVAL BUFFER, pH8.0 \(BUF025A\)](#)

**Product inquiries:** [www.bio-rad-antibodies.com/technical-support](http://www.bio-rad-antibodies.com/technical-support)

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](http://bio-rad-antibodies.com/datasheets)  
'M381254:210512'

Printed on 29 Jan 2026