

## Datasheet: MCA5788GA

<b>Description:</b>	RAT ANTI MOUSE TIM-1
<b>Specificity:</b>	TIM-1
<b>Other names:</b>	CD365, T-CELL IMMUNOGLOBULIN MUCIN 1
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	RMT1-10
<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 A from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> )

<b>Carrier Free</b>	Yes
<b>Approx. Protein Concentrations</b>	IgG concentration 1 mg/ml
<b>Immunogen</b>	Full-length mouse Tim-1-Ig, containing both the IgV and mucin domains of Tim-1.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">Q5QNS5</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">171283</a>    Havcr1    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	Kim1, Tim1, Timd1
<b>Fusion Partners</b>	Lymph node cells from immunized SD rats were fused with cells of the P3U1 myeloma cell line.
<b>Specificity</b>	<p><b>Rat anti Mouse TIM-1 antibody, clone RMT1-10</b> recognizes mouse Tim-1 (T-cell immunoglobulin mucin 1), a cell surface glycoprotein first identified as the hepatitis A virus cellular receptor (HAVCR). TIM-1 is highly expressed in the liver (isoform Tim-1a) and the kidneys (isoform Tim-1b).</p> <p>Tim-1 is highly expressed by activated CD4+ T cells, acting as a positive/negative co-stimulatory molecule of T cell proliferation, cytokine production and tolerance abrogation, and is the receptor for Tim-4, expressed on APCs. Tim-1 expression is greater on Th2 than Th1 cells, interaction between Tim-1 on Th2 cells and Tim-4 on dendritic cells (DCs), enhances Th2 cell function, and have implicated Tim-1 as a critical player in the development of atopic disease, and in particular airway hypersensitivity.</p> <p>In humans, polymorphic forms of Tim-1 are associated with increased susceptibility to asthma, eczema and rheumatoid arthritis (<a href="#">Rodriguez-Manzanet et al. 2009</a>).</p> <p>Rat anti Mouse TIM-1 antibody, clone RMT1-10 promotes Th2 responses, and inhibits antigen-specific T cell proliferation, in contrast to the agonistic function of many Tim-1 antibodies (<a href="#">Xiao et al. 2007</a>). Rat anti Mouse TIM-1 antibody, clone RMT1-10 reduces the severity of experimental autoimmune encephalomyelitis and delays disease onset in mice (<a href="#">Xiao et al. 2007</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. Fukushima, A. <i>et al.</i> (2007) Antibodies to T-cell Ig and mucin domain-containing proteins (Tim)-1 and -3 suppress the induction and progression of murine allergic conjunctivitis. <a href="#">Biochem Biophys Res Commun. 353: 211-6.</a></li> <li>2. Ueno, T. <i>et al.</i> (2008) The emerging role of T cell Ig mucin 1 in alloimmune responses in an experimental mouse transplant model. <a href="#">J Clin Invest. 118: 742-51.</a></li> <li>3. Yuan, X. <i>et al.</i> (2009) Targeting Tim-1 to overcome resistance to transplantation</li> </ol>

tolerance mediated by CD8 T17 cells. [Proc Natl Acad Sci U S A. 106 \(26\): 10734-9.](#)  
4. Rong, S. *et al.* (2011) The TIM-1:TIM-4 pathway enhances renal ischemia-reperfusion injury. [J Am Soc Nephrol. 22: 484-95.](#)  
5. Arai, S. *et al.* (2016) Apoptosis inhibitor of macrophage protein enhances intraluminal debris clearance and ameliorates acute kidney injury in mice. [Nat Med. 22 \(2\): 183-93.](#)

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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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**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/MCA5788GA>  
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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Goat Anti Rat IgG (STAR73...) [RPE](#)  
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...) [DyLight@550](#), [DyLight@650](#), [DyLight@800](#)  
Rabbit Anti Rat IgG (STAR21...) [HRP](#)  
Rabbit Anti Rat IgG (STAR16...) [DyLight@800](#)  
Goat Anti Rat IgG (STAR131...) [Alk. Phos.](#), [Biotin](#)  
Rabbit Anti Rat IgG (STAR17...) [FITC](#)  
Goat Anti Rat IgG (STAR72...) [HRP](#)  
Goat Anti Rat IgG (STAR69...) [FITC](#)

### Recommended Negative Controls

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

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