

Datasheet: MCA5788PE

Description:	RAT ANTI MOUSE TIM-1:RPE
Specificity:	TIM-1
Other names:	CD365, T-CELL IMMUNOGLOBULIN MUCIN 1
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	RMT1-10
Isotype:	IgG2a
Quantity:	100 TESTS

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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat

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.

Target Species	Mouse
Product Form	Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized

Reconstitution
 Reconstitute with 1.0 ml distilled water
 Care should be taken during reconstitution as the protein may appear as a film at the bottom of the vial. Bio-Rad recommend that the vial is gently mixed after reconstitution.

Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	RPE 488nm laser	496	578

Preparation
 Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant

Buffer Solution
 Phosphate buffered saline

Preservative
 0.09% Sodium Azide (NaN₃)

Stabilisers	1% Bovine Serum Albumin 5% Sucrose
Immunogen	Full-length mouse Tim-1-Ig, containing both the IgV and mucin domains of Tim-1.
External Database Links	<p>UniProt: Q5QNS5 Related reagents</p> <p>Entrez Gene: 171283 Havcr1 Related reagents</p>
Synonyms	Kim1, Tim1, Timd1
Fusion Partners	Lymph node cells from immunized SD rats were fused with cells of the P3U1 myeloma cell line.
Specificity	<p>Rat anti Mouse TIM-1 antibody, clone RMT1-10 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 (Rodriguez-Manzanet et al. 2009).</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 (Xiao et al. 2007). Rat anti Mouse TIM-1 antibody, clone RMT1-10 reduces the severity of experimental autoimmune encephalomyelitis and delays disease onset in mice (Xiao et al. 2007).</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10 ⁶ cells in 100ul.
References	<ol style="list-style-type: none"> 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. Biochem Biophys Res Commun. 353: 211-6. 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. J Clin Invest. 118: 742-51. 3. Yuan, X. <i>et al.</i> (2009) Targeting Tim-1 to overcome resistance to transplantation 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.](#)
6. Chen, W.Y. *et al.* (2019) Human dendritic cell-specific ICAM-3-grabbing non-integrin downstream signaling alleviates renal fibrosis via Raf-1 activation in systemic candidiasis. [Cell Mol Immunol. 16 \(3\): 288-301.](#)

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.](#)

Storage Prior to reconstitution store at +4°C.
After reconstitution store at +4°C.
DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #20487 available at: <https://www.bio-rad-antibodies.com/SDS/MCA5788PE>
20487

Regulatory For research purposes only

Related Products

Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL:RPE \(MCA1212PE\)](#)

Recommended Useful Reagents

[MOUSE SEROBLOCK FcR \(BUF041A\)](#)

[MOUSE SEROBLOCK FcR \(BUF041B\)](#)

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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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