

Datasheet: MCA5789F

**BATCH NUMBER 163122**

<b>Description:</b>	RAT ANTI MOUSE TIM-2:FITC
<b>Specificity:</b>	TIM-2
<b>Other names:</b>	T-CELL IMMUNOGLOBULIN MUCIN 2
<b>Format:</b>	FITC
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	RMT2-25
<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	▪			Neat - 1/10

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 Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	FITC	490	525
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% Sodium Azide (NaN <sub>3</sub> )		
Stabilisers	1% Bovine Serum Albumin		
Approx. Protein	IgG concentration 0.1 mg/ml		

## Concentrations

**Immunogen** Tim-2-Ig, consisting of amino acids 1-230 of mouse Tim-2, coupled with the Fc portion of mouse IgG2a.

## External Database Links

### UniProt:

[Q8R183](#)

[Related reagents](#)

### Entrez Gene:

[171284](#)

Timd2

[Related reagents](#)

## Synonyms

Tim2

## Fusion Partners

Lymph node cells from immunized Sprague Dawley rats were fused with cells of the P3U1 myeloma cell line.

## Specificity

**Rat anti Mouse TIM-2 antibody, clone RMT2-25** recognizes mouse Tim-2 (T-cell immunoglobulin mucin 2), a transmembrane glycoprotein and member of the immunoglobulin superfamily, expressed by activated lymphocytes, developmentally in the 8-cell embryo and blastocyst, and preferentially up-regulated in Th2 cells and down-regulated in Th1 cells.

Tim-2 acts as a negative regulator of Th2 cells, and is implicated in the development of atopic disease and other Th2-biased immune responses. Tim-2 also acts as a receptor for Semaphorin 4A, a transmembrane protein expressed on dendritic cells and B cells, which plays a role in the guidance of axonal migration during neuronal development, and has been shown to enhance T cell activation ([Suzuki \*et al.\* 2007](#)).

Signaling by Tim-2 influences the proliferation and antibody production of B cells, during early phase collagen-induced arthritis and Rat anti Mouse TIM-2 antibody, clone RMT2-25 enhances the proliferation of stimulated splenic B cells *in vitro* ([Kawamoto \*et al.\* 2011](#)).

## Flow Cytometry

Use 10ul of the suggested working dilution to label  $1 \times 10^6$  cells in 100ul.

The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity Fc receptors. This may be reduced by using SeroBlock FcR ([BUF041A](#) or [BUF041B](#)).

## References

1. Kawamoto, T. *et al.* (2011) Anti-T cell immunoglobulin and mucin domain-2 monoclonal antibody exacerbates collagen-induced arthritis by stimulating B cells. [Arthritis Res. Ther. 13: R47](#)

## 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

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. This product is photosensitive and should be protected from light.

<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10041 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA5789F10041">https://www.bio-rad-antibodies.com/SDS/MCA5789F10041</a>
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL:FITC \(MCA1212F\)](#)

### Recommended Useful Reagents

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

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

**North & South** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto:antibody_sales_us@bio-rad.com)

**Worldwide**

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: [antibody\\_sales\\_uk@bio-rad.com](mailto:antibody_sales_uk@bio-rad.com)

**Europe**

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: [antibody\\_sales\\_de@bio-rad.com](mailto:antibody_sales_de@bio-rad.com)

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)  
'M384680:210513'

Printed on 19 Jan 2024

© 2024 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)