

# Datasheet: MCA5789F

**BATCH NUMBER 0811**

|                      |                               |
|----------------------|-------------------------------|
| <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

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|                  |   |
|------------------|---|
| <b>Immunogen</b> | Tim-2-Ig, consisting of amino acids 1-230 of mouse Tim-2, coupled with the Fc portion of mouse IgG2a. |
|------------------|---|

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## External Database Links

### UniProt:

[Q8R183](#)

[Related reagents](#)

### Entrez Gene:

[171284](#)

Timd2

[Related reagents](#)

## Synonyms

Tim2

## Fusion Partners

Lymph node cells from immunised 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 to play a critical role 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.

Studies using Rat anti Mouse TIM-2 antibody, clone RMT2-25 in mouse, have shown that signaling by Tim-2 can influence the proliferation and antibody production of B cells, during early phase collagen-induced arthritis ([Kawamoto \*et al.\* 2011](#)).

Rat anti Mouse TIM-2 antibody, clone RMT2-25 has been shown to significantly enhance 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**                      Store at +4°C or at -20°C if preferred.  
Storage in frost-free freezers is not recommended.  
This product should be stored undiluted. This product is photosensitive and should be protected from light.  
Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

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**Guarantee**                      12 months from date of despatch

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**Health And Safety Information**                      Material Safety Datasheet documentation #10041 available at:  
<https://www.bio-rad-antibodies.com/SDS/MCA5789F>  
10041

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**Regulatory**                      For research purposes only

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## Related Products

### Recommended Negative Controls

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

### 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://bio-rad-antibodies.com/datasheets)  
'M368404:200529'

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