

Datasheet: MCA2463F

**BATCH NUMBER 172937**

<b>Description:</b>	RAT ANTI MOUSE CD86:FITC
<b>Specificity:</b>	CD86
<b>Other names:</b>	B7-2
<b>Format:</b>	FITC
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	PO3
<b>Isotype:</b>	IgG2b
<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	▪			

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 conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid						
<b>Max Ex/Em</b>	<table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>FITC</td> <td>490</td> <td>525</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	FITC	490	525
Fluorophore	Excitation Max (nm)	Emission Max (nm)					
FITC	490	525					
<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						
<b>Stabilisers</b>	1% Bovine Serum Albumin						
<b>Approx. Protein</b>	IgG concentration 0.1 mg/ml						

## Concentrations

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**Immunogen** Mouse B-cell line, BCL1.

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## External Database Links

### UniProt:

[P42082](#)   [Related reagents](#)

### Entrez Gene:

[12524](#) Cd86   [Related reagents](#)

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**RRID** AB\_808461

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**Fusion Partners** Spleen cells from immunized Sprague Dawley rats were fused with cells of the P3U1 myeloma cell line.

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## Specificity

**Rat anti mouse CD86 antibody, clone PO3** recognizes mouse CD86 (B7-2), a ~80 kDa cell surface glycoprotein, a member of the CD28/B7 family. In mouse CD86 is expressed at high levels on peripheral blood monocytes and dendritic cells, and at low levels on resting B and T-lymphocytes. Expression of CD86, on these cell populations, can be increased upon activation. CD86 has been identified, along with CD80 (B7-1), as a ligand for CD28 and cytotoxic T-lymphocyte antigen-4 (CTLA4). CD28 and CTLA4 are two receptors that have opposing functions in T-cell stimulation. Interaction of CD86 with CD28 promotes a number of T-cell activities, whereas the binding of CD86 to CTLA4 inhibits T-cell responses.

Rat anti mouse CD86 antibody, clone PO3 has been reported to block some co-stimulatory functions of CD86 ([Nakajima et al. 1997](#)).

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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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## References

1. Nakajima, A. *et al.* (1997) Requirement of CD28-CD86 co-stimulation in the interaction between antigen-primed T helper type 2 and B cells. [Int Immunol. 9 \(5\): 637-44.](#)
2. Nozawa, K. *et al.* (2001) Preferential blockade of CD8(+) T cell responses by administration of anti-CD137 ligand monoclonal antibody results in differential effect on development of murine acute and chronic graft-versus-host diseases. [J Immunol. 167 \(9\): 4981-6.](#)
3. Jin, L.P. *et al.* (2004) Adoptive transfer of paternal antigen-hyporesponsive T cells induces maternal tolerance to the allogeneic fetus in abortion-prone matings. [J Immunol. 173 \(6\): 3612-9.](#)
4. Bedoret, D. *et al.* (2009) Lung interstitial macrophages alter dendritic cell functions to prevent airway allergy in mice. [J Clin Invest. 119 \(12\): 3723-38.](#)
5. Legutko, A. *et al.* (2011) Sirtuin 1 Promotes Th2 Responses and Airway Allergy by Repressing Peroxisome Proliferator-Activated Receptor- $\gamma$  Activity in Dendritic Cells. [J Immunol. 187: 4517-29.](#)
6. Lei, Y. *et al.* (2021) miR-129-5p Ameliorates Ischemic Brain Injury by Binding to SIAH1 and Activating the mTOR Signaling Pathway. [J Mol Neurosci. 71 \(9\): 1761-71.](#)
7. Li, T. *et al.* (2019) NLRP3 inflammasome-activating arginine-based liposomes promote

- antigen presentations in dendritic cells. [Int J Nanomedicine. 14: 3503-16.](#)
8. Chen, Z. *et al.* (2023) Vascularized polypeptide hydrogel modulates macrophage polarization for wound healing. [Acta Biomater. 155: 218-34.](#)
9. De Vito, A. *et al.* (2020) Overexpression of Murine Rnaset2 in a Colon Syngeneic Mouse Carcinoma Model Leads to Rebalance of Intra-Tumor M1/M2 Macrophage Ratio, Activation of T Cells, Delayed Tumor Growth, and Rejection. [Cancers \(Basel\). 12 \(3\)Mar 18 \[Epub ahead of print\].](#)
10. Wang, C. *et al.* (2024) The Role of TLR7 and TLR9 in the Pathogenesis of Systemic Sclerosis. [Int J Mol Sci. 25 \(11\): 6133.](#)

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

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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/MCA2463F>

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**Regulatory** For research purposes only

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## Related Products

### Recommended Useful Reagents

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

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

**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)

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