

Datasheet: MCA2874PE

BATCH NUMBER 151250

Description:	MOUSE ANTI RAT CD86:RPE
Specificity:	CD86
Other names:	B7-2
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	24F
Isotype:	IgG1
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 product 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 product for use in their own system using appropriate negative/positive controls.

Target Species	Rat		
Product Form	Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized		
Reconstitution	Reconstitute with 1ml distilled water		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	RPE 488nm laser	496	578
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 ₃)		
Stabilisers	1% Bovine Serum Albumin		

5% Sucrose

Immunogen HTLV-1 transformed Lewis-S1 cells.

RRID AB_2075122

Fusion Partners Spleen cells from immunised Balb/c mice were fused with cells of the P3U1 mouse myeloma cell line.

Specificity **Mouse anti Rat CD86 antibody, clone 24F** recognizes rat CD86, otherwise known as B7-2, a type I transmembrane protein and member of the Ig superfamily, which acts as a ligand for both CD28 and CD152 (CTLA-4), and is primarily expressed on antigen presenting cells (APCs) including dendritic cells, and also on germinal centre B cells and macrophages.

Like CD80, CD86 is an accessory molecule which functions in the CD28-CD80/CD86 co-stimulatory pathway, vital for T cell activation, crosstalk between T and B cells, and Th₂-mediated Ig production.

Mouse anti Rat CD86 antibody, clone 24F has been shown to block the co-stimulatory activity of rat CD86 ([Maeda *et al.* 1997](#)).

Flow Cytometry Use 10ul of the suggested working dilution to label 1x10⁶ cells in 100ul.

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- References**
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 2. Damoiseaux, J.G. *et al.* (1998) Costimulatory molecules CD80 and CD86 in the rat; tissue distribution and expression by antigen-presenting cells. [J Leukoc Biol. 64 \(6\): 803-9.](#)
 3. Hanabuchi, S. *et al.* (2000) Development of human T-cell leukemia virus type 1-transformed tumors in rats following suppression of T-cell immunity by CD80 and CD86 blockade. [J Virol. 74: 428-35.](#)
 4. Kano, M. *et al.* (1998) A crucial role of host CD80 and CD86 in rat cardiac xenograft rejection in mice. [Transplantation. 65: 837-43.](#)
 5. Tamatani, T. *et al.* (2000) AILIM/ICOS: a novel lymphocyte adhesion molecule. [Int Immunol. 12: 51-5.](#)
 6. Dilek, N. *et al.* (2012) Control of transplant tolerance and intragraft regulatory T cell localization by myeloid-derived suppressor cells and CCL5. [J Immunol. 188: 4209-16.](#)
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 8. Sacedón, R. *et al.* (1999) Glucocorticoid-mediated regulation of thymic dendritic cell function. [Int Immunol. 11: 1217-24.](#)
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 10. MacPhee, I.A. *et al.* (2002) The Th2-response in mercuric chloride-induced autoimmunity requires continuing costimulation via CD28. [Clin Exp Immunol. 129: 405-10.](#)
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helper 2 response inhibits mercuric chloride-induced autoimmunity. [Immunology. 117: 402-8.](#)

12. Yrlid, U. *et al.* (2006) A distinct subset of intestinal dendritic cells responds selectively to oral TLR7/8 stimulation. [Eur J Immunol. 36: 2639-48.](#)

13. Matsumoto, S. *et al.* (2015) CD200+ and CD200- macrophages accumulated in ischemic lesions of rat brain: the two populations cannot be classified as either M1 or M2 macrophages. [J Neuroimmunol. 282: 7-20.](#)

14. Patil, P.S. *et al.* (2016) Fluorinated methacrylamide chitosan hydrogels enhance collagen synthesis in wound healing through increased oxygen availability. [Acta Biomater. 36: 164-74.](#)

15. Hellenbrand, D.J. *et al.* (2019) Sustained interleukin-10 delivery reduces inflammation and improves motor function after spinal cord injury. [J Neuroinflammation. 16 \(1\): 93.](#)

16. Zhou, X. *et al.* (2022) Dusp6 deficiency attenuates neutrophil-mediated cardiac damage in the acute inflammatory phase of myocardial infarction. [Nat Commun. 13 \(1\): 6672.](#)

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/MCA2874PE 20487
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:RPE \(MCA1209PE\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: 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	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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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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