Datasheet: MCA2874F

Description:	MOUSE ANTI RAT CD86:FITC
Specificity:	CD86
Other names:	B7-2
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	24F
Isotype:	IgG1
Quantity:	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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat - 1/10

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 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 Stabilisers

0.09% Sodium Azide (NaN_3)
1% Bovine Serum Albumin

Approx. Protein Concentrations

IgG concentration 0.1mg/ml

Immunogen	HTLV-1 transformed Lewis-S1 cells.
RRID	AB_1720003
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 Th_2-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 $1x10^6$ cells in 100ul.
References	1. 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. 2. Kano, M. *et al.* (1998) A crucial role of host CD80 and CD86 in rat cardiac xenograft rejection in mice. Transplantation. 65: 837-43. 3. Sacedón, R. *et al.* (1999) Glucocorticoid-mediated regulation of thymic dendritic cell function. Int Immunol. 11: 1217-24. 4. 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. 5. Tamatani, T. *et al.* (2000) AILIM/ICOS: a novel lymphocyte adhesion molecule. Int Immunol. 12: 51-5. 6. Kawai, T. *et al.* (2000) T(h)1 transmigration anergy: a new concept of endothelial cell-T cell regulatory interaction. Int Immunol. 12: 937-48. 7. 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. 8. Ghiringhelli, F. *et al.* (2005) Tumor cells convert immature myeloid dendritic cells into TGF-beta-secreting cells inducing CD4+CD25+ regulatory T cell proliferation. J Exp Med. 202: 919-29. 9. MacPhee, I.A. *et al.* (2006) Blockade of OX40-ligand after initial triggering of the T helper 2 response inhibits mercuric chloride-induced autoimmunity. Immunology. 117: 402-8. 10. 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. 11. 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.

12. 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.
13. 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.
14. 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.
15. 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	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.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA2874F 10041
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:FITC (MCA1209F)

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

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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