

Datasheet: MCA1118F

BATCH NUMBER 158546

Description:	MOUSE ANTI HUMAN CD86:FITC
Specificity:	CD86
Other names:	B7-2
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	BU63
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

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	Human		
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 A from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% Sodium Azide		
Stabilisers	1% Bovine Serum Albumin		
Approx. Protein	IgG concentration 0.1 mg/ml		

Concentrations

Immunogen Human peripheral blood lymphocytes.

External Database Links

UniProt:

[P42081](#) [Related reagents](#)

Entrez Gene:

[942](#) CD86 [Related reagents](#)

Synonyms CD28LG2

RRID AB_321776

Fusion Partners Spleen cells from immunised mice were fused with cells of the mouse P3.X63 Ag8653 myeloma cell line.

Specificity **Mouse anti Human CD86 antibody, clone Bu63** recognizes human CD86 also known as B7-2, a type I transmembrane protein expressed by monocytes and activated B cells ([Engel et al. 1994](#)). CD86 acts as a co-stimulatory molecule along with CD80 ([Lanier et al. 1995](#)) and is a ligand for CD28 and CTLA-4 ([Azuma et al. 1993](#)).

CD86 is a member of the Immunoglobulin superfamily and carries an extracellular domain bearing both an [Ig-v-like](#) domain which contains the CTLA-4 binding site and an adjacent C2-like domain. CD86 plays an important role in co-stimulation of T cell proliferation ([Freeman et al. 1993](#)), IL-2 production ([Ribot et al. 2012](#)) and in the primary immune response ([Schultze et al. 1996](#)).

Domain depletion epitope mapping indicates that the binding site of Mouse anti Human CD86, clone Bu63 is located within the Ig-v-like domain of human CD86 ([Jeanin et al. 1997](#)).

CD86 along with CD80 may be exploited as receptors for adenovirus entry into cells ([Short et al. 2004 2006](#)).

Flow Cytometry Use 10ul of the suggested working dilution to label 10⁶ cells in 100ul.

References

1. McLellan, A.D. *et al.* (1999) Induction of dendritic cell costimulator molecule expression is suppressed by T cells in the absence of antigen-specific signalling: role of cluster formation, CD40 and HLA-class II for dendritic cell activation. [Immunology. 98 \(2\): 171-80.](#)
2. Nozawa, Y. *et al.* (1993) A novel monoclonal antibody (FUN-1) identifies an activation antigen in cells of the B-cell lineage and Reed-Sternberg cells. [J Pathol. 169 \(3\): 309-15.](#)
3. Goodyear, O. *et al.* (2010) Induction of a CD8+ T-cell response to the MAGE cancer testis antigen by combined treatment with azacitidine and sodium valproate in patients with acute myeloid leukemia and myelodysplasia. [Blood. 116: 1908-18.](#)
4. Angel, C.E. *et al.* (2006) Cutting edge: CD1a+ antigen-presenting cells in human dermis respond rapidly to CCR7 ligands. [J Immunol. 176 \(10\): 5730-4.](#)

5. Salte, T. *et al.* (2010) Increased intracellular growth of *Mycobacterium avium* in HIV-1 exposed monocyte-derived dendritic cells. [Microbes Infect. 13: 276-83.](#)
6. Adler, H.S. *et al.* (2010) Neuronal nitric oxide synthase modulates maturation of human dendritic cells. [J Immunol. 184: 6025-34.](#)
7. Hovden, A.O. *et al.* (2011) Maturation of monocyte derived dendritic cells with OK432 boosts IL-12p70 secretion and conveys strong T-cell responses. [BMC Immunol. 12:2.](#)
8. Kapsogeorgou, E.K. *et al.* (2001) Functional expression of a costimulatory B7.2 (CD86) protein on human salivary gland epithelial cells that interacts with the CD28 receptor, but has reduced binding to CTLA4. [J Immunol. 166: 3107-13.](#)
9. Lozanoska-Ochser, B. *et al.* (2008) Expression of CD86 on human islet endothelial cells facilitates T cell adhesion and migration. [J Immunol. 181: 6109-16.](#)
10. Urban, B.C. *et al.* (2001) A role for CD36 in the regulation of dendritic cell function. [Proc Natl Acad Sci U S A. 98: 8750-5.](#)
11. Zhan, H. *et al.* (2003) The immunomodulatory role of human conjunctival epithelial cells. [Invest Ophthalmol Vis Sci. 44: 3906-10.](#)
12. Sprater, F. *et al.* (2012) Expression of ESE-3 isoforms in immunogenic and tolerogenic human monocyte-derived dendritic cells. [PLoS One. 7 \(11\): e49577.](#)
13. McCarthy, N.E. *et al.* (2013) Proinflammatory V δ 2+ T Cells Populate the Human Intestinal Mucosa and Enhance IFN- γ Production by Colonic $\alpha\beta$ T Cells. [J Immunol. 191: 2752-63.](#)
14. Hofmann-Wellenhof, R. *et al.* (2004) Sunburn cell formation, dendritic cell migration, and immunomodulatory factor production after solar-simulated irradiation of sunscreen-treated human skin explants *in vitro*. [J Invest Dermatol. 123: 781-7.](#)
15. Rajkovic, I. *et al.* (2011) Differences in T-helper polarizing capability between human monocyte-derived dendritic cells and monocyte-derived Langerhans'-like cells. [Immunology. 132: 217-25.](#)
16. Silk, K.M. *et al.* (2012) Rapamycin conditioning of dendritic cells differentiated from human ES cells promotes a tolerogenic phenotype. [J Biomed Biotechnol. 2012: 172420.](#)
17. Ikezumi, Y. *et al.* (2021) Steroid treatment promotes an M2 anti-inflammatory macrophage phenotype in childhood lupus nephritis. [Pediatr Nephrol. 36 \(2\): 349-59.](#)

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/MCA1118F>
10041

Regulatory

For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:FITC \(MCA928F\)](#)

Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

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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

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