

## Datasheet: MCA1118F

**BATCH NUMBER 0315**

<b>Description:</b>	MOUSE ANTI HUMAN 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>	BU63
<b>Isotype:</b>	IgG1
<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

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>	Human		
<b>Product Form</b>	Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	FITC	490	525
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A 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** Human peripheral blood lymphocytes.

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## External Database Links

**UniProt:**

[P42081](#)    [Related reagents](#)

**Entrez Gene:**

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

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**Synonyms** CD28LG2

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**RRID** AB\_321776

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

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## 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 studies indicate 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](#)).

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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. 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 $\delta$ 2+ T Cells Populate the Human Intestinal Mucosa and Enhance IFN- $\gamma$  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.](#)

<b>Storage</b>	<p>Store at +4°C or at -20°C if preferred.</p> <p>This product should be stored undiluted.</p> <p>Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.</p>
<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10041 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1118F">https://www.bio-rad-antibodies.com/SDS/MCA1118F</a> 10041
<b>Regulatory</b>	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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'M364806:200529'

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