

Datasheet: MCA1118FT

Description:	MOUSE ANTI HUMAN CD86:FITC
Specificity:	CD86
Other names:	B7-2
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	BU63
Isotype:	IgG1
Quantity:	25 µg

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 G from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% Sodium Azide		
Stabilisers	1% Bovine Serum Albumin		
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml		
Immunogen	Human peripheral blood lymphocytes.		
External Database Links	UniProt: P42081 Related reagents		

Entrez Gene:[942](#) CD86 [Related reagents](#)

Synonyms	CD28LG2
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 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). Studies suggest that 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 10 ⁶ cells in 100ul.
References	- McLellan, A.D. <i>et al.</i> (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. - Nozawa, Y. <i>et al.</i> (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. - Goodyear, O. <i>et al.</i> (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. - Angel, C.E. <i>et al.</i> (2006) Cutting edge: CD1a+ antigen-presenting cells in human dermis respond rapidly to CCR7 ligands. J Immunol. 176 (10): 5730-4. - Salte, T. <i>et al.</i> (2010) Increased intracellular growth of <i>Mycobacterium avium</i> in HIV-1 exposed monocyte-derived dendritic cells. Microbes Infect. 13: 276-83. - Adler, H.S. <i>et al.</i> (2010) Neuronal nitric oxide synthase modulates maturation of human dendritic cells. J Immunol. 184: 6025-34. - Hovden, A.O. <i>et al.</i> (2011) Maturation of monocyte derived dendritic cells with OK432 boosts IL-12p70 secretion and conveys strong T-cell responses. BMC Immunol. 12:2. - Kapsogeorgou, E.K. <i>et al.</i> (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. - Lozanoska-Ochser, B. <i>et al.</i> (2008) Expression of CD86 on human islet endothelial cells facilitates T cell adhesion and migration. J Immunol. 181: 6109-16. - Urban, B.C. <i>et al.</i> (2001) A role for CD36 in the regulation of dendritic cell function. Proc Natl Acad Sci U S A. 98: 8750-5. - Zhan, H. <i>et al.</i> (2003) The immunomodulatory role of human conjunctival epithelial cells. Invest Ophthalmol Vis Sci. 44: 3906-10. - Sprater, F. <i>et al.</i> (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 α 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.](#)

Storage

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life

18 months from date of despatch.

Health And Safety Information

Material Safety Datasheet documentation #10041 available at:
10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

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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'M301813:170109'

Printed on 05 May 2018