

Datasheet: MCA1118

BATCH NUMBER 169138

Description:	MOUSE ANTI HUMAN CD86
Specificity:	CD86
Other names:	B7-2
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	BU63
Isotype:	IgG1
Quantity:	0.2 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	▪			1/20 - 1/100
Immunohistology - Frozen	▪			1/20 - 1/100
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	

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	Human
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% sodium azide (NaN ₃)

Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Human peripheral blood lymphocytes.
External Database Links	<p>UniProt: P42081 Related reagents</p> <p>Entrez Gene: 942 CD86 Related reagents</p>
Synonyms	CD28LG2
RRID	AB_321774
Fusion Partners	Spleen cells from immunised mice were fused with cells of the mouse P3.X63 Ag8653 myeloma cell line.
Specificity	<p>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).</p> <p>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).</p> <p>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).</p> <p>CD86 along with CD80 may be exploited as receptors for adenovirus entry into cells (Short et al. 2004 2006).</p>
Flow Cytometry	Use 10µl of the suggested working dilution to label 10 ⁶ cells in 100µl.
Histology Positive Control Tissue	Human Tonsil
References	<ol style="list-style-type: none"> 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. 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.

3. Salte, T. *et al.* (2010) Increased intracellular growth of *Mycobacterium avium* in HIV-1 exposed monocyte-derived dendritic cells. [Microbes Infect. 13: 276-83.](#)
4. Adler, H.S. *et al.* (2010) Neuronal nitric oxide synthase modulates maturation of human dendritic cells. [J Immunol. 184: 6025-34.](#)
5. 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.](#)
6. 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.](#)
7. 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.](#)
8. 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.](#)
9. Zhan, H. *et al.* (2003) The immunomodulatory role of human conjunctival epithelial cells. [Invest Ophthalmol Vis Sci. 44: 3906-10.](#)
10. Sprater, F. *et al.* (2012) Expression of ESE-3 isoforms in immunogenic and tolerogenic human monocyte-derived dendritic cells. [PLoS One. 7 \(11\): e49577.](#)
11. 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.](#)
12. 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.](#)
13. 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.](#)
14. 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.](#)
15. 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.

Guarantee	12 months from date of despatch
------------------	---------------------------------

Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA1118
--------------------------------------	--

Regulatory	For research purposes only
-------------------	----------------------------

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG IgA IgM (STAR87...)	HRP
Goat Anti Mouse IgG (STAR70...)	FITC
Rabbit Anti Mouse IgG (STAR13...)	HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight®488 , DyLight®550 , DyLight®650 , DyLight®680 , DyLight®800 , FITC , HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

Product inquiries: www.bio-rad-antibodies.com/technical-support

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M408164:221010'

Printed on 01 Oct 2025