

Datasheet: MCA1118PB

Description:	MOUSE ANTI HUMAN CD86:Pacific Blue®
Specificity:	CD86
Other names:	B7-2
Format:	Pacific Blue®
Product Type:	Monoclonal Antibody
Clone:	BU63
Isotype:	lgG1
Quantity:	100 TESTS/1ml

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	Human		
Product Form	Purified IgG conjugate	ed to Pacific Blue - liqu	uid
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	Pacific Blue®	410	455
Preparation	Purified IgG prepared supernatant	by affinity chromatogi	raphy on Protein A fro
Preparation Buffer Solution	9	, , ,	raphy on Protein A fro
	supernatant	aline	raphy on Protein A fro
Buffer Solution	supernatant Phosphate buffered sa	aline (NaN ₃)	raphy on Protein A fro

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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 (<u>Engel et al.</u> 1994). CD86 acts as a co-stimulaory molecule along with CD80 (<u>Lanier et al.</u> 1995) and is a ligand for CD28 and CTLA-4 (<u>Azuma et al.</u> 1993).

CD86 is a member of the Immunoglobulin superfamily and carries an extracellular domain bearing both an <u>Ig-v-like</u> 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 (<u>Freeman et al. 1993</u>), IL-2 production (<u>Ribot et al. 2012</u>) and in the primary immune response (<u>Schultze et al. 1996</u>).

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 (<u>Jeanin et al.</u> 1997).

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

Flow Cytometry

Use 10µl of the suggested working dilution to label 10⁶ cells in 100µl

References

- 1. 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.
- 2. Angel, C.E. *et al.* (2006) Cutting edge: CD1a+ antigen-presenting cells in human dermis respond rapidly to CCR7 ligands. <u>J Immunol. 176 (10): 5730-4.</u>
- 3. Salte, T. *et al.* (2010) Increased intracellular growth of *Mycobacterium avium* in HIV-1 exposed monocyte-derived dendritic cells. <u>Microbes Infect. 13: 276-83.</u>
- 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. <u>Proc</u> 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. <u>PLoS One. 7 (11): e49577.</u>
- 11. McCarthy, N.E. *et al.* (2013) Proinflammatory $V\delta 2+T$ Cells Populate the Human Intestinal Mucosa and Enhance IFN- γ Production by Colonic $\alpha\beta$ T Cells. <u>J Immunol. 191:</u> 2752-63.
- 12. Hofmann-Wellenhof, R. *et al.* (2004) Sunburn cell formation, dendritic cell migration, and immunomodulatory factor production after solar-simulated irradiation of sunscreentreated 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. <u>J Biomed Biotechnol. 2012: 172420.</u>
 15. Ikezumi, Y. *et al.* (2021) Steroid treatment promotes an M2 anti-inflammatory macrophage phenotype in childhood lupus nephritis. <u>Pediatr Nephrol. 36 (2): 349-59.</u>

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

Acknowledgements

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Health And Safety Information

Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA1118PB 10041

Regulatory

For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL: Pacific Blue® (MCA928PB)

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A) HUMAN SEROBLOCK (BUF070B)

 North & South
 Tel: +1 800 265 7376
 Worldwide
 Tel: +44 (0)1865 852 700
 Europe
 Tel: +49 (0) 89 8090 95 21

 America
 Fax: +1 919 878 3751
 Fax: +44 (0)1865 852 739
 Fax: +49 (0) 89 8090 95 50

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M408167:221010'

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