

## Datasheet: MCA1118T

<b>Description:</b>	MOUSE ANTI HUMAN CD86
<b>Specificity:</b>	CD86
<b>Other names:</b>	B7-2
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	BU63
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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](http://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.

<b>Target Species</b>	Human
<b>Product Form</b>	Purified IgG - liquid
<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 Stabilisers</b>	0.09% sodium azide (NaN <sub>3</sub> )

<b>Carrier Free</b>	Yes
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	Human peripheral blood lymphocytes.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P42081</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">942</a>    CD86    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	CD28LG2
<b>RRID</b>	AB_2074890
<b>Fusion Partners</b>	Spleen cells from immunised mice were fused with cells of the mouse P3.X63 Ag8653 myeloma cell line.
<b>Specificity</b>	<p><b>Mouse anti Human CD86 antibody, clone Bu63</b> recognizes human CD86 also known as B7-2, a type I transmembrane protein expressed by monocytes and activated B cells (<a href="#">Engel et al. 1994</a>). CD86 acts as a co-stimulatory molecule along with CD80 (<a href="#">Lanier et al. 1995</a>) and is a ligand for CD28 and CTLA-4 (<a href="#">Azuma et al. 1993</a>).</p> <p>CD86 is a member of the Immunoglobulin superfamily and carries an extracellular domain bearing both an <a href="#">Ig-v-like</a> 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 (<a href="#">Freeman et al. 1993</a>), IL-2 production (<a href="#">Ribot et al. 2012</a>) and in the primary immune response (<a href="#">Schultze et al. 1996</a>).</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 (<a href="#">Jeanin et al. 1997</a>).</p> <p>CD86 along with CD80 may be exploited as receptors for adenovirus entry into cells (<a href="#">Short et al. 2004 2006</a>).</p>
<b>Flow Cytometry</b>	Use 10µl of the suggested working dilution to label 10 <sup>6</sup> cells in 100µl.
<b>Histology Positive Control Tissue</b>	Human Tonsil
<b>References</b>	<ol style="list-style-type: none"> <li>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. <a href="#">Immunology. 98 (2): 171-80.</a></li> <li>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. <a href="#">J Pathol. 169 (3): 309-15.</a></li> </ol>

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 Vδ2+ T Cells Populate the Human Intestinal Mucosa and Enhance IFN-γ Production by Colonic αβ 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.

---

**Guarantee**

12 months from date of despatch

---

**Health And Safety Information**

Material Safety Datasheet documentation #10040 available at:  
10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

---

## Related Products

### Recommended Secondary Antibodies

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

### Recommended Negative Controls

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

**North & South** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto:antibody_sales_us@bio-rad.com)

**Worldwide**

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: [antibody\\_sales\\_uk@bio-rad.com](mailto:antibody_sales_uk@bio-rad.com)

**Europe**

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: [antibody\\_sales\\_de@bio-rad.com](mailto:antibody_sales_de@bio-rad.com)

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)

'M408165:221010'

Printed on 08 Feb 2023