

## Datasheet: MCA2462GA

**BATCH NUMBER 163850**

<b>Description:</b>	RAT ANTI MOUSE CD80
<b>Specificity:</b>	CD80
<b>Other names:</b>	B7-1
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	RM80
<b>Isotype:</b>	IgG2a
<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	▪			1/10 - 1/50
Immunohistology - Frozen	▪			
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>	Mouse
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G 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 1.0mg/ml
<b>Immunogen</b>	BCL1 cells expressing CD80.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">Q00609</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">12519</a> Cd80    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	B7
<b>RRID</b>	AB_905983
<b>Fusion Partners</b>	Spleen cells from immunized SD rats were fused with cells of the P3U1 myeloma cell line.
<b>Specificity</b>	<p><b>Rat anti Mouse CD80 antibody, clone RM80</b> recognizes mouse CD80 (B7-1), a ~60 kDa cell surface glycoprotein which is a member of the CD28/B7 family. In mice, CD80 is expressed on monocytes, peritoneal macrophages and dendritic cells, and expression may be significantly increased upon B lymphocytes by LPS and by IL-4.</p> <p>CD80 has been identified as a ligand for CD28 and cytotoxic T-lymphocyte antigen-4 (CTLA-4), two structurally similar molecules expressed on T cells. CD28 and CTLA4 are two receptors that have essential but opposing functions in T-cell stimulation. The interaction of CD80 with CD28 stimulates and sustains T cell responses, whereas the interaction of CD80 with CTLA4 is reported to inhibit T-cell responses.</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label $1 \times 10^6$ cells in 100ul.
<b>References</b>	<ol style="list-style-type: none"> <li>1. Nakajima, A. <i>et al.</i> (1997) Requirement of CD28-CD86 co-stimulation in the interaction between antigen-primed T helper type 2 and B cells. <a href="#">Int Immunol. 9 (5): 637-44.</a></li> <li>2. Nozawa, K. <i>et al.</i> (2001) Preferential blockade of CD8(+) T cell responses by administration of anti-CD137 ligand monoclonal antibody results in differential effect on development of murine acute and chronic graft-versus-host diseases. <a href="#">J Immunol. 167 (9): 4981-6.</a></li> <li>3. Jin LP <i>et al.</i> (2004) Adoptive transfer of paternal antigen-hyporesponsive T cells induces maternal tolerance to the allogeneic fetus in abortion-prone matings. <a href="#">J Immunol. 173 (6): 3612-9.</a></li> <li>4. Inada, T. <i>et al.</i> (2009) Vaccines using dendritic cells, differentiated with propofol, enhance antitumor immunity in mice. <a href="#">Immunopharmacol Immunotoxicol. 31 (1): 150-7.</a></li> <li>5. Bedoret, D. <i>et al.</i> (2009) Lung interstitial macrophages alter dendritic cell functions to prevent airway allergy in mice. <a href="#">J Clin Invest. 119 (12): 3723-38.</a></li> <li>6. Deng, J. <i>et al.</i> (2010) Dendritic cells loaded with ultrasound-ablated tumour induce in vivo specific antitumour immune responses. <a href="#">Ultrasound Med Biol. 36 (3): 441-8.</a></li> </ol>

7. Legutko, A. *et al.* (2011) Sirtuin 1 Promotes Th2 Responses and Airway Allergy by Repressing Peroxisome Proliferator-Activated Receptor- $\gamma$  Activity in Dendritic Cells. [J Immunol. 187: 4517-29.](#)
8. He, Y.T. *et al.* (2016) *In vitro* generation of cytotoxic T lymphocyte response using dendritic cell immunotherapy in osteosarcoma. [Oncol Lett. 12 \(2\): 1101-6.](#)
9. Kim, I. *et al.* (2016) Immunological characterization of de novo and recall alloantibody suppression by CTLA4Ig in a mouse model of allosensitization. [Transpl Immunol. 38: 84-92.](#)
10. Curina, G. *et al.* (2018) Evaluation of immune responses in mice and sheep inoculated with a live attenuated *Brucella melitensis*. REV1 vaccine produced in bioreactor. [Vet Immunol Immunopathol. 198: 44-53.](#)

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**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.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2462GA>  
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**Regulatory** For research purposes only

## Related Products

### Recommended Secondary Antibodies

Goat Anti Rat IgG (STAR69...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR73...)	<a href="#">RPE</a>
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	<a href="#">DyLight®550</a> , <a href="#">DyLight®650</a> , <a href="#">DyLight®800</a>
Rabbit Anti Rat IgG (STAR21...)	<a href="#">HRP</a>
Rabbit Anti Rat IgG (STAR16...)	<a href="#">DyLight®800</a>
Goat Anti Rat IgG (STAR131...)	<a href="#">Alk. Phos.</a> , <a href="#">Biotin</a>
Rabbit Anti Rat IgG (STAR17...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR72...)	<a href="#">HRP</a>

### Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL \(MCA1212\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](http://bio-rad-antibodies.com/datasheets)

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