

Datasheet: MCA2462GA

BATCH NUMBER 163850

Description:	RAT ANTI MOUSE CD80
Specificity:	CD80
Other names:	B7-1
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	RM80
Isotype:	IgG2a
Quantity:	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.

	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.

Target Species	Mouse
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G 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 1.0mg/ml
Immunogen	BCL1 cells expressing CD80.
External Database Links	<p>UniProt: Q00609 Related reagents</p> <p>Entrez Gene: 12519 Cd80 Related reagents</p>
Synonyms	B7
RRID	AB_905983
Fusion Partners	Spleen cells from immunized SD rats were fused with cells of the P3U1 myeloma cell line.
Specificity	<p>Rat anti Mouse CD80 antibody, clone RM80 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>
Flow Cytometry	Use 10ul of the suggested working dilution to label 1×10^6 cells in 100ul.
References	<ol style="list-style-type: none"> 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. Int Immunol. 9 (5): 637-44. 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. J Immunol. 167 (9): 4981-6. 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. J Immunol. 173 (6): 3612-9. 4. Inada, T. <i>et al.</i> (2009) Vaccines using dendritic cells, differentiated with propofol, enhance antitumor immunity in mice. Immunopharmacol Immunotoxicol. 31 (1): 150-7. 5. Bedoret, D. <i>et al.</i> (2009) Lung interstitial macrophages alter dendritic cell functions to prevent airway allergy in mice. J Clin Invest. 119 (12): 3723-38. 6. Deng, J. <i>et al.</i> (2010) Dendritic cells loaded with ultrasound-ablated tumour induce in vivo specific antitumour immune responses. Ultrasound Med Biol. 36 (3): 441-8.

7. Legutko, A. *et al.* (2011) Sirtuin 1 Promotes Th2 Responses and Airway Allergy by Repressing Peroxisome Proliferator-Activated Receptor- γ 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.](#)

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

Recommended Secondary Antibodies

Goat Anti Rat IgG (STAR69...)	FITC
Goat Anti Rat IgG (STAR73...)	RPE
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	DyLight®550 , DyLight®650 , DyLight®800
Rabbit Anti Rat IgG (STAR21...)	HRP
Rabbit Anti Rat IgG (STAR16...)	DyLight®800
Goat Anti Rat IgG (STAR131...)	Alk. Phos. , Biotin
Rabbit Anti Rat IgG (STAR17...)	FITC
Goat Anti Rat IgG (STAR72...)	HRP

Recommended Negative Controls

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

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: 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	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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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](https://www.bio-rad-antibodies.com/datasheets)

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