

Datasheet: MCA2463A647T

Description:	RAT ANTI MOUSE CD86:Alexa Fluor® 647
Specificity:	CD86
Other names:	B7-2
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	PO3
Isotype:	IgG2b
Quantity:	25 TESTS/0.25ml

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	■			

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

Target Species	Mouse		
Product Form	Purified IgG conjugated to Alexa Fluor® 647 - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	Alexa Fluor®647	650	665
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		
	1%	Bovine Serum Albumin	
Approx. Protein Concentrations	IgG concentration 0.05 mg/ml		

Immunogen	Mouse B-cell line, BCL1.
External Database Links	<p>UniProt: P42082 Related reagents</p> <p>Entrez Gene: 12524 Cd86 Related reagents</p>
RRID	AB_2074995
Fusion Partners	Spleen cells from immunized Sprague Dawley rats were fused with cells of the P3U1 myeloma cell line.
Specificity	<p>Rat anti mouse CD86 antibody, clone PO3 recognizes mouse CD86 (B7-2), a ~80 kDa cell surface glycoprotein, a member of the CD28/B7 family. In mouse CD86 is expressed at high levels on peripheral blood monocytes and dendritic cells, and at low levels on resting B and T-lymphocytes. Expression of CD86, on these cell populations, can be increased upon activation. CD86 has been identified, along with CD80 (B7-1), as a ligand for CD28 and cytotoxic T-lymphocyte antigen-4 (CTLA4). CD28 and CTLA4 are two receptors that have opposing functions in T-cell stimulation. Interaction of CD86 with CD28 promotes a number of T-cell activities, whereas the binding of CD86 to CTLA4 inhibits T-cell responses.</p> <p>Rat anti mouse CD86 antibody, clone PO3 has been reported to block some co-stimulatory functions of CD86 (Nakajima et al. 1997).</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 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, L.P. <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. 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. 5. Legutko, A. <i>et al.</i> (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. 6. Lei, Y. <i>et al.</i> (2021) miR-129-5p Ameliorates Ischemic Brain Injury by Binding to SIAH1 and Activating the mTOR Signaling Pathway. J Mol Neurosci. 71 (9): 1761-71. 7. Li, T. <i>et al.</i> (2019) NLRP3 inflammasome-activating arginine-based liposomes promote antigen presentations in dendritic cells. Int J Nanomedicine. 14: 3503-16. 8. Chen, Z. <i>et al.</i> (2023) Vascularized polypeptide hydrogel modulates macrophage

polarization for wound healing. [Acta Biomater. 155: 218-34.](#)

9. De Vito, A. *et al.* (2020) Overexpression of Murine Rnaset2 in a Colon Syngeneic Mouse Carcinoma Model Leads to Rebalance of Intra-Tumor M1/M2 Macrophage Ratio, Activation of T Cells, Delayed Tumor Growth, and Rejection. [Cancers \(Basel\). 12 \(3\)Mar 18 \[Epub ahead of print\].](#)

10. Wang, C. *et al.* (2024) The Role of TLR7 and TLR9 in the Pathogenesis of Systemic Sclerosis. [Int J Mol Sci. 25 \(11\): 6133.](#)

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. This product is photosensitive and should be protected from light.

Guarantee	12 months from date of despatch
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Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA2463A647T10041
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Regulatory	For research purposes only
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