

Datasheet: MCA1143P647

Description:	RAT ANTI MOUSE CD40:RPE-Alexa Fluor® 647
Specificity:	CD40
Format:	RPE-ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	3/23
Isotype:	IgG2a
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 - 1/5

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. 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 R. Phycoerythrin (RPE) - Alexa Fluor® 647 - lyophilized									
Reconstitution	Reconstitute with 1.0 ml distilled water									
Max Ex/Em	<table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>RPE-Alexa Fluor®647 488nm laser</td> <td>496</td> <td>667</td> </tr> <tr> <td>RPE-Alexa Fluor®647 561nm laser</td> <td>546</td> <td>667</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	RPE-Alexa Fluor®647 488nm laser	496	667	RPE-Alexa Fluor®647 561nm laser	546	667
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RPE-Alexa Fluor®647 488nm laser	496	667								
RPE-Alexa Fluor®647 561nm laser	546	667								
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant									
Buffer Solution	Phosphate buffered saline									
Preservative	0.09% sodium azide (NaN ₃)									
Stabilisers	1% bovine serum albumin 5% sucrose									

Immunogen	Extracellular Domain of Mouse CD40 and the Fc portion of Human IgG1.
External Database Links	<p>UniProt: P27512 Related reagents</p> <p>Entrez Gene: 21939 Cd40 Related reagents</p>
Synonyms	Tnfrsf5
RRID	AB_871976
Fusion Partners	Spleen cells from immunised LOU/c rats were fused with cells of the Ag8 mouse myeloma cell line.
Specificity	<p>Rat anti Mouse CD40 antibody, clone 3/23 recognizes the murine CD40 cell surface glycoprotein. It does not react with normal mouse Ig or with human IgG1 and will stain most mature mouse B cells. It does not cross react with mouse T cells. The specificity of Rat anti Mouse CD40 antibody, clone 3/23 was demonstrated by ELISA and flow cytometry using BHK cells transfected with mouse CD40.</p> <p>Rat anti Mouse CD40 antibody, clone 3/23 is a powerful activator of normal B cells especially in the presence of IL-4.</p>
Flow Cytometry	<p>Use 10µl of the suggested working dilution to label 10⁶ cells in 100µl.</p> <p>The Fc region of monoclonal antibodies may bind to cells expressing low affinity Fc receptors. This may be reduced by using SeroBlock FcR (BUF041A/BUF041B).</p>
References	<ol style="list-style-type: none"> 1. Parry, S.L. <i>et al.</i> (1994) Plastic-immobilized anti-mu or anti-delta antibodies induce apoptosis in mature murine B lymphocytes. Eur J Immunol. 24 (4): 974-9. 2. Hasbold, J. & Klaus, G.G. (1994) B cells from CBA/N mice do not proliferate following ligation of CD40. Eur J Immunol. 24 (1): 152-7. 3. Salomon, B. <i>et al.</i> (1998) Three populations of mouse lymph node dendritic cells with different origins and dynamics. J Immunol. 160: 708-17. 4. Yang, Y.F. <i>et al.</i> (2000) Requirement for IFN-gamma in IL-12 production induced by collaboration between v(alpha)14(+) NKT cells and antigen-presenting cells. Int Immunol. 12: 1669-75. 5. Ogasawara, K. <i>et al.</i> (2002) Profiles of cell-to-cell interaction of Mycobacterium intracellulare-induced immunosuppressive macrophages with target T cells in terms of suppressor signal transmission. Clin Exp Immunol. 129: 272-80. 6. Russo, S. <i>et al.</i> (2003) Platelet-activating factor mediates CD40-dependent angiogenesis and endothelial-smooth muscle cell interaction. J Immunol. 171: 5489-97. 7. Mukhopadhyay, S. <i>et al.</i> (2004) Activation of murine macrophages by Neisseria meningitidis and IFN-gamma in vitro: distinct roles of class A scavenger and Toll-like pattern recognition receptors in selective modulation of surface phenotype. J Leukoc Biol. 76: 577-84. 8. Mohan, J. <i>et al.</i> (2005) Skin-derived dendritic cells acquire and degrade the scrapie

- agent following in vitro exposure. [Immunology. 116: 122-33.](#)
9. Bedoret, D. *et al.* (2009) Lung interstitial macrophages alter dendritic cell functions to prevent airway allergy in mice. [J Clin Invest. 119 \(12\): 3723-38.](#)
10. Shakib, S. *et al.* (2009) Checkpoints in the development of thymic cortical epithelial cells. [J Immunol. 182: 130-7.](#)
11. 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.](#)
12. Pletinckx, K. *et al.* (2015) Immature dendritic cells convert anergic nonregulatory T cells into Foxp3- IL-10+ regulatory T cells by engaging CD28 and CTLA-4. [Eur J Immunol. 45 \(2\): 480-91.](#)
13. Malada-Edelstein, Y.F. *et al.* (2017) Regulatory role of cytosolic phospholipase A₂ alpha in the induction of CD40 in microglia. [J Neuroinflammation. 14 \(1\): 33.](#)

Storage Store at +4°C.
DO NOT FREEZE.
This product should be stored undiluted This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee 12 months from date of despatch.

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Health And Safety Information Material Safety Datasheet documentation #20487 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1143P647>
20487

Regulatory For research purposes only

Related Products

Recommended Useful Reagents

[MOUSE SEROBLOCK FcR \(BUF041A\)](#)

[MOUSE SEROBLOCK FcR \(BUF041B\)](#)

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