

## Datasheet: MCA1143A647

<b>Description:</b>	RAT ANTI MOUSE CD40:Alexa Fluor® 647
<b>Specificity:</b>	CD40
<b>Format:</b>	ALEXA FLUOR® 647
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	3/23
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat - 1/10

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.

<b>Target Species</b>	Mouse						
<b>Product Form</b>	Purified IgG conjugated to Alexa Fluor® 647 - liquid						
<b>Max Ex/Em</b>	<table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>Alexa Fluor®647</td> <td>650</td> <td>665</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	Alexa Fluor®647	650	665
Fluorophore	Excitation Max (nm)	Emission Max (nm)					
Alexa Fluor®647	650	665					
<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</b>	0.09% Sodium Azide						
<b>Stabilisers</b>	1% Bovine Serum Albumin						
<b>Approx. Protein Concentrations</b>	IgG concentration 0.05 mg/ml						
<b>Immunogen</b>	Extracellular Domain of Mouse CD40 and the Fc portion of Human IgG1.						
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P27512</a>   <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">21939</a> Cd40   <a href="#">Related reagents</a></p>						

<b>Synonyms</b>	Tnfrsf5
<b>Fusion Partners</b>	Spleen cells from immunised LOU/c rats were fused with cells of the Ag8 mouse myeloma cell line.
<b>Specificity</b>	<p><b>Rat anti Mouse CD40 antibody, clone 3/23</b> 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>
<b>Flow Cytometry</b>	<p>Use 10ul of the suggested working dilution to label 10<sup>6</sup> cells in 100ul.</p> <p>The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity fc receptors. This may be reduced by using SeroBlock FcR (<a href="#">BUF041A/B</a>).</p>
<b>References</b>	<ol style="list-style-type: none"> <li>1. Parry, S.L. <i>et al.</i> (1994) Plastic-immobilized anti-mu or anti-delta antibodies induce apoptosis in mature murine B lymphocytes. <a href="#">Eur J Immunol. 24 (4): 974-9.</a></li> <li>2. Hasbold, J. <i>et al.</i> (1994) Properties of mouse CD40: cellular distribution of CD40 and B cell activation by monoclonal anti-mouse CD40 antibodies. <a href="#">Eur J Immunol. 24 (8): 1835-42.</a></li> <li>3. Hasbold, J. &amp; Klaus, G.G. (1994) B cells from CBA/N mice do not proliferate following ligation of CD40. <a href="#">Eur J Immunol. 24 (1): 152-7.</a></li> <li>4. 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>5. Mohan, J. <i>et al.</i> (2005) Skin-derived dendritic cells acquire and degrade the scrapie agent following in vitro exposure. <a href="#">Immunology. 116: 122-33.</a></li> <li>6. 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. <a href="#">J Leukoc Biol. 76: 577-84.</a></li> <li>7. Russo, S. <i>et al.</i> (2003) Platelet-activating factor mediates CD40-dependent angiogenesis and endothelial-smooth muscle cell interaction. <a href="#">J Immunol. 171: 5489-97.</a></li> <li>8. Shakib, S. <i>et al.</i> (2009) Checkpoints in the development of thymic cortical epithelial cells. <a href="#">J Immunol. 182: 130-7.</a></li> <li>9. 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. <a href="#">Clin Exp Immunol. 129: 272-80.</a></li> <li>10. Salomon, B. <i>et al.</i> (1998) Three populations of mouse lymph node dendritic cells with different origins and dynamics. <a href="#">J Immunol. 160: 708-17.</a></li> <li>11. 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. <a href="#">Int Immunol. 12: 1669-75.</a></li> <li>12. 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. <a href="#">J Immunol. 187: 4517-29.</a></li> <li>13. Pletincx, K. <i>et al.</i> (2015) Immature dendritic cells convert anergic nonregulatory T cells into Foxp3- IL-10+ regulatory T cells by engaging CD28 and CTLA-4. <a href="#">Eur J Immunol. 45 (2): 480-91.</a></li> <li>14. Malada-Edelstein, Y.F. <i>et al.</i> (2017) Regulatory role of cytosolic phospholipase A<sub>2</sub> alpha in the induction of CD40 in microglia. <a href="#">J Neuroinflammation. 14 (1): 33.</a></li> </ol>
<b>Storage</b>	Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

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**Shelf Life** 18 months from date of despatch.

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**Acknowledgements** The Alexa Fluor® dye antibody conjugates in this product are sold under license from Molecular Probes, Inc. for research use only, except for use in combination with microarrays, and are covered by pending and issued patents.

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**Health And Safety Information** Material Safety Datasheet documentation #10041 available at: 10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

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**Regulatory** For research purposes only

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## Related Products

### Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA1212A647\)](#)

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