

## Datasheet: MCA1143EL

**BATCH NUMBER 164015**

<b>Description:</b>	RAT ANTI MOUSE CD40:Low Endotoxin
<b>Specificity:</b>	CD40
<b>Format:</b>	Low Endotoxin
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	3/23
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	0.5 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	▪			1/50
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA	▪			
Immunoprecipitation			▪	
Western Blotting			▪	
Functional Assays	▪			

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.

<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>	None present

<b>Carrier Free</b>	Yes
<b>Endotoxin Level</b>	< 0.01 EU/ug
<b>Approx. Protein Concentrations</b>	IgG concentration 1 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>RRID</b>	AB_324096
<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>	Use 10µl of the suggested working dilution to label 10 <sup>6</sup> cells in 100µl
<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. &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>3. 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>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. <a href="#">Int Immunol. 12: 1669-75.</a></li> <li>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. <a href="#">Clin Exp Immunol. 129: 272-80.</a></li> <li>6. 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>7. Mukhopadhyay, S. <i>et al.</i> (2004) Activation of murine macrophages by Neisseria</li> </ol>

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.](#)

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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- $\gamma$  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.](#)

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<b>Storage</b>	Store at -20°C only. <b>This product should be stored undiluted. Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.</b>
<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10162 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1143EL">https://www.bio-rad-antibodies.com/SDS/MCA1143EL</a> 10162
<b>Regulatory</b>	For research purposes only

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## 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:Low Endotoxin \(MCA1212EL\)](#)

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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