

Datasheet: MCA1143EL BATCH NUMBER 152418

Description:	RAT ANTI MOUSE CD40:Low Endotoxin		
Specificity:	CD40		
Format:	Low Endotoxin		
Product Type:	Monoclonal Antibody		
Clone:	3/23		
Isotype:	IgG2a		
Quantity:	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 <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	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.

Target Species	Mouse	
Product Form	Purified IgG - liquid	
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue of supernatant	culture
Buffer Solution	Phosphate buffered saline	
Preservative Stabilisers	None present	

Carrier Free	Yes			
Endotoxin Level	< 0.01 EU/ug			
Approx. Protein Concentrations	IgG concentration 1 mg/ml			
Immunogen	Extracellular Domain of Mouse CD40 and the Fc portion of Human IgG1.			
External Database Links	UniProt: P27512 Related reagents  Entrez Gene: 21939 Cd40 Related reagents			
Synonyms	Tnfrsf5			
RRID	AB_324096			
Fusion Partners	Spleen cells from immunised LOU/c rats were fused with cells of the Ag8 mouse myeloma cell line.			
Specificity	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.  Rat anti Mouse CD40 antibody, clone 3/23 is a powerful activator of normal B cells			
	especially in the presence of IL-4.			
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.			
References	<ol> <li>Parry, S.L. <i>et al.</i> (1994) Plastic-immobilized anti-mu or anti-delta antibodies induce apoptosis in mature murine B lymphocytes. <u>Eur J Immunol. 24 (4): 974-9.</u></li> <li>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. <u>Eur J Immunol. 24 (8): 1835-42.</u></li> <li>Hasbold, J. &amp; Klaus, G.G. (1994) B cells from CBA/N mice do not proliferate following ligation of CD40. <u>Eur J Immunol. 24 (1): 152-7.</u></li> <li>Bedoret, D. <i>et al.</i> (2009) Lung interstitial macrophages alter dendritic cell functions to prevent airway allergy in mice. <u>J Clin Invest. 119 (12): 3723-38.</u></li> <li>Mohan, J. <i>et al.</i> (2005) Skin-derived dendritic cells acquire and degrade the scrapie agent following in vitro exposure. <u>Immunology. 116: 122-33.</u></li> <li>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. <u>J Leukoc Biol. 76: 577-84.</u></li> </ol>			

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- 8. Shakib, S. *et al.* (2009) Checkpoints in the development of thymic cortical epithelial cells. J Immunol. 182: 130-7.
- 9. Ogasawara, K. *et al.* (2002) Profiles of cell-to-cell interaction of Mycobacterium intracellulare-induced immunosuppressive macrophages with target T cells in terms of suppressor signal transmission. <u>Clin Exp Immunol.</u> 129: 272-80.
- 10. Salomon, B. *et al.* (1998) Three populations of mouse lymph node dendritic cells with different origins and dynamics. <u>J Immunol. 160: 708-17.</u>
- 11. Yang, Y.F. *et al.* (2000) Requirement for IFN-gamma in IL-12 production induced by collaboration between v(alpha)14(+) NKT cells and antigen-presenting cells. <u>Int Immunol.</u> 12: 1669-75.
- 12. 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.
- 13. 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. <u>Eur J Immunol.</u> 45 (2): 480-91.
- 14. Malada-Edelstein, Y.F. *et al.* (2017) Regulatory role of cytosolic phospholipase A<sub>2</sub> alpha in the induction of CD40 in microglia. <u>J Neuroinflammation</u>. 14 (1): 33.

#### Storage

Store at -20°C only.

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.

Guarantee	12 months from date of despatch
Health And Safety Information	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

For research purposes only

Regulatory

# **Related Products**

## **Recommended Secondary Antibodies**

Rabbit Anti Rat IgG (STAR16...)

Rabbit Anti Rat IgG (STAR17...)

Goat Anti Rat IgG (STAR72...)

Goat Anti Rat IgG (STAR69...)

Goat Anti Rat IgG (STAR73...)

RPE

Rabbit Anti Rat IgG (STAR21...)

Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...) DyLight®550, DyLight®650, DyLight®800

### Alk. Phos., Biotin

## **Recommended Negative Controls**

#### RAT IgG2a NEGATIVE CONTROL:Low Endotoxin (MCA1212EL)

 North & South
 Tel: +1 800 265 7376
 Worldwide
 Tel: +44 (0)1865 852 700
 Europe
 Tel: +49 (0) 89 8090 95 21

 America
 Fax: +1 919 878 3751
 Fax: +44 (0)1865 852 739
 Fax: +49 (0) 89 8090 95 50

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M364834:200529'

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