Datasheet: MCA1143EL

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 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.

Target Species	Mouse
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
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
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 10^6 cells in 100ul.
References	1. Parry, S.L. *et al.* (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. *et al.* (1994) Properties of mouse CD40: cellular distribution of CD40 and B cell activation by monoclonal anti-mouse CD40 antibodies. Eur J Immunol. 24 (8): 1835-42. 3. 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. 4. 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. 5. Mohan, J. *et al.* (2005) Skin-derived dendritic cells acquire and degrade the scrapie agent following in vitro exposure. Immunology. 116: 122-33. 6. Mukhopadhyay, S. *et al.* (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. 7. Russo, S. *et al.* (2003) Platelet-activating factor mediates CD40-dependent angiogenesis and endothelial-smooth muscle cell interaction. J Immunol. 171: 5489-97. 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. Clin Exp Immunol. 129: 272-80. 10. Salomon, B. *et al.* (1998) Three populations of mouse lymph node dendritic cells with different origins and dynamics. J Immunol. 160: 708-17. 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. Int Immunol. 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. Eur J Immunol. 45 (2): 480-91.

14. Malada-Edelstein, Y.F. *et al.* (2017) Regulatory role of cytosolic phospholipase A_2 alpha in the induction of CD40 in microglia. J Neuroinflammation. 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.
Shelf Life	18 months from date of despatch.
Health And Safety Information	Material Safety Datasheet documentation #10162 available at: 10162: https://www.bio-rad-antibodies.com/uploads/MSDS/10162.pdf
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	DyLight®800
Goat Anti Rat IgG (STAR73...)	RPE
Rabbit Anti Rat IgG (STAR21...)	HRP
Rabbit Anti Rat IgG (STAR17...)	FITC
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	DyLight®649, DyLight®800
Goat Anti Rat IgG (STAR131...)	Alk. Phos., Biotin
Goat Anti Rat IgG (STAR69...)	FITC
Goat Anti Rat IgG (STAR72...)	HRP

Recommended Negative Controls

RAT IgG2a NEGATIVE CONTROL:Low Endotoxin (MCA1212EL)

North & South America Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com

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