

Datasheet: MCA1143A647

Description:	RAT ANTI MOUSE CD40:Alexa Fluor® 647
Specificity:	CD40
Format:	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 - 1/10

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.

Target Species	Mouse		
Product Form	Purified IgG conjugated to Alexa Fluor® 647 - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	Alexa Fluor®647	650	665
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% Sodium Azide		
Stabilisers	1% Bovine Serum Albumin		
Approx. Protein Concentrations	IgG concentration 0.05 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_324817

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 10⁶ cells in 100ul.

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 ([BUF041A/B](#)).

References

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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.](#)
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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.](#)
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9. Ogasawara, K. *et al.* (2002) Profiles of cell-to-cell interaction of Mycobacterium

- intracellular-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- γ 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 A₂ alpha in the induction of CD40 in microglia. [J Neuroinflammation. 14 \(1\): 33.](#)

Storage 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.

Guarantee 12 months from date of despatch

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.

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

Regulatory For research purposes only

Related Products

Recommended Negative Controls

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

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

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