

Datasheet: MCA2302A488

Description:	RAT ANTI MOUSE CD70:Alexa Fluor® 488
Specificity:	CD70
Other names:	TNFSF7
Format:	ALEXA FLUOR® 488
Product Type:	Monoclonal Antibody
Clone:	FR70
Isotype:	IgG2b
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

Where this product 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 product for use in their own system using appropriate negative/positive controls.

Target Species	Mouse		
Product Form	Purified IgG conjugated to Alexa Fluor® 488 - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	Alexa Fluor®488	495	519
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative Stabilisers	0.09% sodium azide (NaN ₃)		
	1% bovine serum albumin		
Approx. Protein Concentrations	IgG concentration 0.05 mg/ml		

Immunogen	A20 mouse B cell lymphoma cell line
External Database Links	<p>UniProt: O55237 Related reagents</p> <p>Entrez Gene: 21948 Cd70 Related reagents</p>
Synonyms	Cd27I, Cd27Ig, Tnfsf7
RRID	AB_566878
Fusion Partners	Spleen cells from immunized F344/DuCrj rats were fused with cells of the mouse P3U1 myeloma cell line
Specificity	<p>Rat anti Mouse CD70 antibody, clone FR70 recognizes mouse CD70, a ~30-33 kDa single pass type II transmembrane glycoprotein belonging to the TNF superfamily. CD70 is not expressed on resting T cells and B cells but expression is induced on activation. Interaction of CD70 with its ligand CD27 is reported to play an important role in T cell co-stimulation and the regulation of T-dependant B cell activation and antibody production (Nolte et al. 2009).</p> <p>Rat anti Mouse CD70 antibody, clone FR70 blocks functionality of CD70 and has been used to block the interactions between CD27 and CD70 (Oshima et al.).</p>
Flow Cytometry	<p>Use 10µl of the suggested working dilution to label 10⁶ cells in 100µl.</p> <p>The Fc region of monoclonal antibodies may bind to cells expressing low affinity Fc receptors. This may be reduced by using SeroBlock FcR (BUF041A/BUF041B).</p>
References	<ol style="list-style-type: none"> 1. Oshima, H. <i>et al.</i> (1998) Characterization of murine CD70 by molecular cloning and mAb. Int Immunol. 10 (4): 517-26. 2. Takeda, K. <i>et al.</i> (2000) CD27-mediated activation of murine NK cells. J Immunol. 164 (4): 1741-5. 3. Akiba, H. <i>et al.</i> (2000) Critical contribution of OX40 ligand to T helper cell type 2 differentiation in experimental leishmaniasis. J Exp Med. 191 (2): 375-80. 4. Akiba, H. <i>et al.</i> (1999) CD28-independent costimulation of T cells by OX40 ligand and CD70 on activated B cells. J Immunol. 162 (12): 7058-66.
Storage	<p>This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.</p>
Guarantee	12 months from date of despatch

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Health And Safety Information Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2302A488>
10041

Regulatory For research purposes only

Related Products

Recommended Useful Reagents

[MOUSE SEROBLOCK FcR \(BUF041A\)](#)

[MOUSE SEROBLOCK FcR \(BUF041B\)](#)

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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](https://www.bio-rad-antibodies.com/datasheets)
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