

Datasheet: MCA4636A647

Description:	HAMSTER ANTI MOUSE CD152:Alexa Fluor® 647
Specificity:	CD152
Other names:	CTLA-4
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	1B8
Isotype:	IgG
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® 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 (NaN ₃)		
Stabilisers	1% Bovine Serum Albumin		
Approx. Protein Concentrations	IgG concentration 0.05mg/ml		
Immunogen	Extracellular portion of mouse CD152 fused to a mouse IgG2a.		
External Database Links	UniProt: P09793 Related reagents		

Entrez Gene:[12477](#) CtlA4 [Related reagents](#)

Synonyms	Cd152
Fusion Partners	Lymph cells from immunised Armenian hamsters were fused with cells of the murine SP2/0 myeloma cell line.
Specificity	Hamster anti Mouse CD152 antibody, clone 1B8 recognizes mouse CD152, commonly known as CTLA-4 (cytotoxic T-lymphocyte protein 4), a structural homolog for CD28. CD152 binds the same ligands as CD28, namely CD80 (B7.1) and CD86 (B7.2), but with much higher affinity. However, while binding of CD28 enhances T cell function, binding of CD152 inhibits it. CD152 is not detected on naïve T-cells and is induced upon T-cell activation. In mice, lack of CD152 leads to massive lymphoproliferative disorder leading to tissue destruction and autoimmunity, suggesting a critical role for CD152 in limiting T-cell responses. CD152 has been shown to reduce IL-2 production after ligation and can inhibit T-cell expansion. This regulatory role and the high binding affinity of CD152 make it a potential therapy for autoimmune diseases such as rheumatoid arthritis. Hamster anti Mouse CD152 antibody, clone 1B8 may be used to enhance proliferation and pro-inflammatory cytokines of lymph node cells. It may also be used to enhance tumour immunity.
Flow Cytometry	Use 10ul of the suggested working dilution to label 1×10^6 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	1. Walunas, T. L. <i>et al.</i> (1994) CTLA-4 can function as a negative regulator of T cell activation. Immunity 1: 405-413. 2. Verhagen, J. <i>et al.</i> (2013) CTLA-4 controls the thymic development of both conventional and regulatory T cells through modulation of the TCR repertoire. Proc Natl Acad Sci U S A. 110: E221-30.
Further Reading	1. Karandikar, N.J. <i>et al.</i> (1996) CTLA-4: a negative regulator of autoimmune disease. J Exp Med. 184 (2): 783-8.
Storage	Store at +4°C or at -20°C if preferred. Storage in frost-free freezers is not recommended. This product should be stored undiluted. 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.
Shelf Life	18 months from date of despatch.
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Health And Safety Information	Material Safety Datasheet documentation #10041 available at: 10041: https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf
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Regulatory	For research purposes only
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Related Products

Recommended Negative Controls

[HAMSTER \(ARMENIAN\) IgG NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA2356A647\)](#)

Recommended Useful Reagents

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

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

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