

## Datasheet: MCA4636A647

<b>Description:</b>	HAMSTER ANTI MOUSE CD152:Alexa Fluor® 647
<b>Specificity:</b>	CD152
<b>Other names:</b>	CTLA-4
<b>Format:</b>	ALEXA FLUOR® 647
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	1B8
<b>Isotype:</b>	IgG
<b>Quantity:</b>	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](http://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.

<b>Target Species</b>	Mouse		
<b>Product Form</b>	Purified IgG conjugated to Alexa Fluor® 647 - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	Alexa Fluor®647	650	665
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant		
<b>Buffer Solution</b>	Phosphate buffered saline		
<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> ) 1% Bovine Serum Albumin		
<b>Approx. Protein Concentrations</b>	IgG concentration 0.05mg/ml		

<b>Immunogen</b>	Extracellular portion of mouse CD152 fused to a mouse IgG2a.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P09793</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">12477</a>    Ctla4    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	Cd152
<b>RRID</b>	AB_10671797
<b>Fusion Partners</b>	Lymph cells from immunised Armenian hamsters were fused with cells of the murine SP2/0 myeloma cell line.
<b>Specificity</b>	<p><b>Hamster anti Mouse CD152 antibody, clone 1B8</b> 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.</p> <p>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.</p> <p>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.</p>
<b>Flow Cytometry</b>	<p>Use 10ul of the suggested working dilution to label <math>1 \times 10^6</math> cells in 100ul.</p> <p>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 (<a href="#">BUF041A/B</a>).</p>
<b>References</b>	<ol style="list-style-type: none"> <li>Walunas, T. L. <i>et al.</i> (1994) CTLA-4 can function as a negative regulator of T cell activation. <a href="#">Immunity 1: 405-413.</a></li> <li>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. <a href="#">Proc Natl Acad Sci U S A. 110: E221-30.</a></li> </ol>
<b>Further Reading</b>	<ol style="list-style-type: none"> <li>Karandikar, N.J. <i>et al.</i> (1996) CTLA-4: a negative regulator of autoimmune disease. <a href="#">J Exp Med. 184 (2): 783-8.</a></li> </ol>
<b>Storage</b>	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.

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.

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**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/MCA4636A647>  
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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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