

## Datasheet: MCA2092F

<b>Description:</b>	MOUSE ANTI RAT CD152:FITC
<b>Specificity:</b>	CD152
<b>Other names:</b>	CLTA-4, CTLA-4
<b>Format:</b>	FITC
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	WKH203
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	0.1 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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry (1)	▪			Neat

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.

(1) **Membrane permeabilisation is required for this application. Bio-Rad recommends the use of Leucoperm™ (Product Code [BUF09](#)) for this purpose.**

<b>Target Species</b>	Rat		
<b>Product Form</b>	Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation (nm)</b>	<b>Emission (nm)</b>
	FITC	490	520
<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</b>	0.09% Sodium Azide		
<b>Stabilisers</b>	1% Bovine Serum Albumin		
<b>Approx. Protein Concentrations</b>	IgG concentration 0.1 mg/ml		
<b>Immunogen</b>	Purified rCTLA-4hlg fusion protein.		
<b>Fusion Partners</b>	Spleen cells from immunized Balb/c were fused with cells of the X63-Ag8-653 myeloma cell line.		

<b>Specificity</b>	<b>Mouse anti Rat CD152 antibody, clone WKH203</b> recognizes rat CD152, also known as cytotoxic-T-lymphocyte antigen-4 (CTLA-4), which is similar in structure to CD28 and also binds ligands CD80 and CD86. CD152 is expressed by activated T-lymphocytes and studies also suggest expression by regulatory T-lymphocytes ( <a href="#">Lin and Hunig 2003</a> ).
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
<b>References</b>	<ol style="list-style-type: none"> <li>1. Elflein, K. <i>et al.</i> (2003) Rapid recovery from T lymphopenia by CD28 superagonist therapy <a href="#">Blood. 102: 1764-1770.</a></li> <li>2. Lin, C-H. and Hunig, T. (2003) Efficient expansion of regulatory T cells <i>in vitro</i> and <i>in vivo</i> with a CD 28 superagonist. <a href="#">Eur J. Immunol. 33: 626-638.</a></li> <li>3. Almolda, B. <i>et al.</i> (2010) Activated microglial cells acquire an immature dendritic cell phenotype and may terminate the immune response in an acute model of EAE. <a href="#">J Neuroimmunol. 223:39-54.</a></li> </ol>
<b>Storage</b>	<p>Store at +4°C or at -20°C if preferred.</p> <p>This product should be stored undiluted.</p> <p>Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.</p>
<b>Shelf Life</b>	18 months from date of despatch.
<b>Health And Safety Information</b>	Material Safety Datasheet Documentation #10041 available at: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf</a>
<b>Regulatory</b>	For research purposes only

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