

Datasheet: MCA2092

Description:	MOUSE ANTI RAT CD152
Specificity:	CD152
Other names:	CLTA-4, CTLA-4
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	WKH203
Isotype:	IgG1
Quantity:	0.25 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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry (1)	■			1/10 - 1/20
Immunohistology - Frozen			■	
Immunohistology - Paraffin			■	
ELISA	■			
Immunoprecipitation			■	
Western Blotting	■			

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.**

Target Species	Rat
Product Form	Purified IgG - liquid
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
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml

Immunogen	Purified rCTLA-4hlg fusion protein.
Fusion Partners	Spleen cells from immunized Balb/c were fused with cells of the X63-Ag8-653 myeloma cell line.
Specificity	Mouse anti Rat CD152 antibody, clone WKH203 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 (Lin and Hunig 2003).
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
References	1. Elflein, K. <i>et al.</i> (2003) Rapid recovery from T lymphopenia by CD28 superagonist therapy. Blood. 102 (5): 1764-70. 2. Blewett, H.J. <i>et al.</i> (2009) Vaccenic acid favourably alters immune function in obese JCR:LA-cp rats. Br J Nutr. 102 (4): 526-36. 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. J Neuroimmunol. 223 (1-2): 39-54. 4. Beyersdorf, N. <i>et al.</i> (2005) Selective targeting of regulatory T cells with CD28 superagonists allows effective therapy of experimental autoimmune encephalomyelitis. J Exp Med. 202 (3): 445-55. 5. Elflein, K. <i>et al.</i> (2003) Rapid recovery from T lymphopenia by CD28 superagonist therapy. Blood. 102 (5): 1764-70. 6. Hara, Y. <i>et al.</i> (2006) Anergic lymphocytes generated by blocking CD28 and ICOS pathways in vitro prolong rat cardiac graft survival. Int Immunopharmacol. 6 (7): 1143-51.
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. 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.
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: 10040: https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight®488 , DyLight®549 , DyLight®649 , DyLight®680 , DyLight®800 , FITC , HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP

Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Rabbit Anti Mouse IgG (STAR8...)	DyLight®800
Goat Anti Mouse IgG (STAR70...)	FITC
Rabbit Anti Mouse IgG (STAR13...)	HRP
Human Anti Mouse IgG1 (HCA036...)	HRP

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA1209\)](#)

North & South America	Tel: +1 800 265 7376	Worldwide	Tel: +44 (0)1865 852 700	Europe	Tel: +49 (0) 89 8090 95 21
	Fax: +1 919 878 3751		Fax: +44 (0)1865 852 739		Fax: +49 (0) 89 8090 95 50
	Email: antibody_sales_us@bio-rad.com		Email: antibody_sales_uk@bio-rad.com		Email: antibody_sales_de@bio-rad.com

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