

Datasheet: MCA949F

Description:	RAT ANTI MOUSE CD205:FITC
Specificity:	CD205
Other names:	DEC205
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	NLDC-145
Isotype:	lgG2a
Quantity:	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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	•			Neat - 1/10
Immunohistology - Frozen			•	
Immunohistology - Paraffin			•	

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.

Target Species	Mouse			
Product Form	Purified IgG conjugate	ed to Fluorescein Isoth	niocyanate Isomer 1	1 (FITC) - liquid
Max Ex/Em	Fluorophore FITC	Excitation Max (nm) 490	Emission Max (nm	n)
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant			
Buffer Solution	Phosphate buffered sa	aline		
Preservative Stabilisers	0.09% Sodium Azide 1% Bovine Serum	Albumin		

Approx. Protein Concentrations	IgG concentration 0.1 mg/ml		
Immunogen	Mouse lymph node stroma.		
External Database Links	UniProt: Q60767 Related reagents		
	Entrez Gene: 17076 Ly75 Related reagents		
Synonyms	Cd205		
RRID	AB_323596		
Specificity	Rat anti Mouse CD205, clone NLDC-145 recognizes DEC-20		

Rat anti Mouse CD205, clone NLDC-145 recognizes DEC-205, a ~205 kDa integral membrane glycoprotein expressed by mouse dendritic cells and thymic epithelial cells. It is absent in bone marrow cells, all blood cells and freshly isolated macrophages from the peritoneal cavity. A subpopulation of the latter becomes positive in mice previously stimulated with thioglycollate. It is also absent on follicular dendritic cells of B cell follicles.

The antigen is found on la positive interdigitating cells in T cell areas of all secondary lymphoid organs. It is also present on veiled cells. In non-lymphoid organs, the antigen is only found on Langerhans cells of the skin but cross reactions with la positive thymic epithelial cells and intestinal villus epithelial cells are also observed.

DEC-205 is expressed at the cell surface of unfixed cells but can also be found in the cytoplasm of fixed cells.

Flow Cytometry

Use 10ul of the suggested working dilution to label 10⁶ 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 (<u>BUF041A/B</u>).

References

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- 2. Jiang, W. *et al.* (1995) The receptor DEC-205 expressed by dendritic cells and thymic epithelial cells is involved in antigen processing. <u>Nature</u>. <u>375</u> (6527): 151-5.
- 3. Swiggard, W.J. *et al.* (1995) DEC-205, a 205-kDa protein abundant on mouse dendritic cells and thymic epithelium that is detected by the monoclonal antibody NLDC-145: purification, characterization, and N-terminal amino acid sequence. <u>Cell Immunol. 165 (2)</u>: 302-11.
- 4. Inaba, K. *et al.* (1995) Tissue distribution of the DEC-205 protein that is detected by the monoclonal antibody NLDC-145. I. Expression on dendritic cells and other subsets of mouse leukocytes. Cell Immunol. 163 (1): 148-56.
- 5. Wolf AJ et al. (2007) Mycobacterium tuberculosis infects dendritic cells with high

frequency and impairs their function in vivo. J Immunol. 179 (4): 2509-19.

- 6. Schliemann, C. *et al.* (2010) *In vivo* biotinylation of the vasculature in B-cell lymphoma identifies BST-2 as a target for antibody-based therapy. <u>Blood</u>. 115: 736-44.
- 7. Jobe O *et al.* (2009) Immunization with radiation-attenuated *Plasmodium berghei* sporozoites induces liver cCD8alpha+DC that activate CD8+T cells against liver-stage malaria. PLoS One. 4 (4): e5075.
- 8. Zhang, S.S. *et al.* (2008) Plasminogen activator Pla of *Yersinia pestis* utilizes murine DEC-205 (CD205) as a receptor to promote dissemination. J Biol Chem. 283: 31511-21.
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- 12. Wu Y *et al.* (2016) Effect of Aging on Periodontal Inflammation, Microbial Colonization, and Disease Susceptibility. <u>J Dent Res. 95 (4): 460-6.</u>
- 13. Kobayashi, A. *et al.* (2015) AG490, a Jak2 inhibitor, suppressed the progression of murine ovarian cancer. <u>Eur J Pharmacol. 766: 63-75.</u>
- 14. Xiao, W. et al. (2015) FOXO1 deletion reduces dendritic cell function and enhances susceptibility to periodontitis. Am J Pathol. 185 (4): 1085-93.
- 15. Charmoy, M. *et al.* (2010) Neutrophil-derived CCL3 is essential for the rapid recruitment of dendritic cells to the site of *Leishmania major* inoculation in resistant mice. PLoS Pathog. 6 (2): e1000755.
- 16. Suárez-Álvarez, R.O. *et al.* (2019) Dimorphism and Dissemination of *Histoplasma capsulatum* in the Upper Respiratory Tract after Intranasal Infection of Bats and Mice with Mycelial Propagules. Am J Trop Med Hyg. 101 (3): 716-723.
- 17. Singh, T. *et al.* (2019) Loss of MafA and MafB expression promotes islet inflammation. Sci Rep. 9 (1): 9074.

Storage

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.

Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: 10041: https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

RAT IgG2a NEGATIVE CONTROL:FITC (MCA1212F)

 North & South
 Tel: +1 800 265 7376
 Worldwide
 Tel: +44 (0)1865 852 700
 Europe
 Tel: +49 (0) 89 8090 95 21

 America
 Fax: +1 919 878 3751
 Fax: +44 (0)1865 852 739
 Fax: +49 (0) 89 8090 95 50

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M385037:210513'

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