

Datasheet: MCA949A647

Description:	RAT ANTI MOUSE CD205:Alexa Fluor® 647		
Specificity:	CD205		
Other names:	DEC205		
Format:	ALEXA FLUOR® 647		
Product Type:	Monoclonal Antibody		
Clone:	NLDC-145		
Isotype:	IgG2a		
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 - 1/10

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	Purified IgG conjugated to Alexa Fluor® 647 - liquid			
Max Ex/Em	Fluorophore Alexa Fluor®647	Excitation Max (nm)	Emission Max (nm)		
Preparation	Purified IgG prepared supernatant	by affinity chromatog	raphy on Protein G f	from tissue culture	
Buffer Solution	Phosphate buffered sa	aline			
Preservative Stabilisers	0.09% Sodium Azide 1% Bovine Serum	Albumin			
Approx. Protein Concentrations	IgG concentration 0.0	5 mg/ml			

Immunogen	Mouse lymph node stroma.
External Database	
Links	UniProt:
	Q60767 Related reagents
	Entrez Gene:
	17076 Ly75 Related reagents
Synonyms	Cd205
RRID	AB_321138
Specificity	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 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 (<u>BUF041A/B</u>).
References	 Barclay, A.N. & Ward, H.A. (1982) Purification and chemical characterisation of membrane glycoproteins from rat thymocytes and brain, recognised by monoclonal antibody MRC OX 2. <u>Eur J Biochem. 129 (2): 447-58.</u> Jiang, W. <i>et al.</i> (1995) The receptor DEC-205 expressed by dendritic cells and thymic
	epithelial cells is involved in antigen processing. Nature. 375 (6527): 151-5.
	3. Swiggard, W.J. <i>et al.</i> (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 <i>in vivo</i> . <u>J Immunol</u> . 179 (4): 2509-19.

identifies BST-2 as a target for antibody-based therapy. <u>Blood. 115: 736-44.</u>

6. Schliemann, C. et al. (2010) In vivo biotinylation of the vasculature in B-cell lymphoma

- 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.
- 9. Mohan, J. *et al.* (2005) Skin-derived dendritic cells acquire and degrade the scrapie agent following *in vitro* exposure. <u>Immunology. 116: 122-33.</u>
- 10. Jin, X. *et al.* (2014) Long-Term Persistence of Functional Thymic Epithelial Progenitor Cells *In Vivo* under Conditions of Low FOXN1 Expression. <u>PLoS One. 9: e114842.</u>
- 11. Damian-Morales, G. *et al.* (2016) The HPV16 E7 Oncoprotein Disrupts Dendritic Cell Function and Induces the Systemic Expansion of CD11b(+)Gr1(+) Cells in a Transgenic Mouse Model. Biomed Res Int. 2016: 8091353.
- 12. Wu Y *et al.* (2016) Effect of Aging on Periodontal Inflammation, Microbial Colonization, and Disease Susceptibility. J Dent Res. 95 (4): 460-6.
- 13. Kobayashi, A. *et al.* (2015) AG490, a Jak2 inhibitor, suppressed the progression of murine ovarian cancer. Eur J Pharmacol. 766: 63-75.
- 14. Xiao, W. *et al.* (2015) FOXO1 deletion reduces dendritic cell function and enhances susceptibility to periodontitis. <u>Am J Pathol. 185 (4): 1085-93.</u>
- 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. <u>Am J Trop Med Hyg. 101 (3): 716-723.</u>
- 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.

Guarantee

12 months from date of despatch

Acknowledgements

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Health And Safety

Material Safety Datasheet documentation #10041 available at:

Information 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: Alexa Fluor® 647 (MCA1212A647)

Recommended Useful Reagents

MOUSE SEROBLOCK FcR (BUF041A)
MOUSE SEROBLOCK FcR (BUF041B)

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Tel: +44 (0)1865 852 700

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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M382621:210513'

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