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 conjugated to Alexa Fluor® 647 - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
Alexa Fluor®647	650	665

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
1% Bovine Serum Albumin

Approx. Protein Concentrations

IgG concentration 0.05 mg/ml

Immunogen

Mouse lymph node stroma.

External Database Links

UniProt:
Q60767 Related reagents

Entrez Gene:

17076 Ly75 Related reagents

Synonyms Cd205

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 Ia 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 Ia 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 (BUF041A/B).

References

1. 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. Eur J Biochem. 129 (2): 447-58.
2. Jiang, W. *et al.* (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. *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. Cell Immunol. 165 (2): 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. Blood. 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.
9. Mohan, J. *et al.* (2005) Skin-derived dendritic cells acquire and degrade the scrapie agent following *in vitro* exposure. Immunology. 116: 122-33.
10. Jin, X. *et al.* (2014) Long-Term Persistence of Functional Thymic Epithelial Progenitor Cells *In Vivo* under Conditions of Low FOXN1 Expression. PLoS One. 9: e114842.
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. 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.

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.
Acknowledgements	This product is provided under an intellectual property licence from Life Technologies Corporation. The transfer of this product is contingent on the buyer using the purchase product solely in research, excluding contract research or any fee for service research, and the buyer must not sell or otherwise transfer this product or its components for (a) diagnostic, therapeutic or prophylactic purposes; (b) testing, analysis or screening services, or information in return for compensation on a per-test basis; (c) manufacturing or quality assurance or quality control, or (d) resale, whether or not resold for use in research. For information on purchasing a license to this product for purposes other than as described above, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad CA 92008 USA or outlicensing@thermofisher.com
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:Alexa Fluor® 647 (MCA1212A647)

Recommended Useful Reagents

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

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

'M300278:170105'

Printed on 01 Aug 2018