

Datasheet: MCA949

Description:	RAT ANTI MOUSE CD205	
Specificity:	CD205	
Other names:	DEC205	
Format:	S/N	
Product Type:	Monoclonal Antibody	
Clone:	NLDC-145	
Isotype:	lgG2a	
Quantity:	2 ml	

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	-			
Immunohistology - Frozen	-			1/10 - 1/25
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.

Target Species	Mouse	
Product Form	Tissue Culture Supernatant - liquid	
Preparation	Tissue Culture Supernatant containing 0.2M Tris/HCl pH7.4 and 5-10% foetal calf serum	
Preservative Stabilisers	0.09% Sodium Azide	
Immunogen	Mouse lymph node stroma.	
External Database Links	UniProt: Q60767 Related reagents Entrez Gene:	
	17076 Ly75 Related reagents	

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.

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. <u>Eur J Biochem.</u> 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. <u>Nature</u>. 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. <u>Cell Immunol. 163 (1): 148-56.</u>
- 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. 115: 736-44.</u>
- 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. <u>PLoS One. 4</u> (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. <u>J Biol Chem. 283: 31511-21.</u>
- 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. 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. <u>Biomed Res Int. 2016: 8091353.</u>
- 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. <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. <u>PLoS Pathog. 6 (2):</u> 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.

Health And Safety Information

Material Safety Datasheet documentation #10055 available at:

10055: https://www.bio-rad-antibodies.com/uploads/MSDS/10055.pdf

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...) <u>DyLight®800</u>

Goat Anti Rat IgG (STAR73...)

Rabbit Anti Rat IgG (STAR21...)

Rabbit Anti Rat IgG (STAR17...)

FITC

Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...) DyLight®649, DyLight®800

Goat Anti Rat IgG (STAR131...) Alk. Phos., Biotin

Goat Anti Rat IgG (STAR69...)

Goat Anti Rat IgG (STAR72...)

HRP

Recommended Negative Controls

RAT IgG2a NEGATIVE CONTROL (MCA1212)

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