

Monoclonal Antibody to CD205 / DEC-205 - FITC

Alternate names:	C-type lectin domain family 13 member B, CLEC13B, DEC205, LY75, Lymphocyte antigen 75, gp200-MR6
Catalog No.:	BM4017F
Quantity:	0.2 mg
Concentration:	0.2 mg/ml
Background:	Mouse CD205, also known as DEC-205 (dendritic and epithelial cells, 205 kDa). CD205 is an integral membrane glycoprotein involved in antigen uptake, trafficking and presentation that improves the induction of antigen-specific T cell immunity. CD205 is highly expressed by CD8+ dendritic cells (DCs) and also expressed at different levels by bone marrow Gr1+ cells, Langerhans cells, (BMDC) bone marrow derived DCs and thymic epithelial cells. DEC-205 is apparently a receptor involved in antigen-processing by dendritic cells.
Uniprot ID:	Q60767
NCBI:	NP_038853.2
GeneID:	17076
Host / Isotype:	Rat / IgG2a
Clone:	NLDC145
Immunogen:	Mouse lymph node tissue.
Format:	State: Liquid purified Ig fraction. Purification: Affinity Chromatography. Buffer System: PBS, pH 7.2 containing 10 mg/ml BSA as stabilizer and 0.09% Sodium Azide as preservative. Label: FITC
Applications:	Suitable for use in Flow cytometry: Starting dilution is 2 µg to label 10e6 cells. Suggested Positive Control: GM-CSF and IL-4 stimulated bone marrow cells. Antigen distribution: See Table 1. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	Reacts with nonlymphoid dendritic cells: interdigitating cells (IDC), veiled cells and Langerhans cells, thymic epithelial cells. Monoclonal antibody NLDC-145 identifies Ia positive interdigitating cells, veiled cells and Langerhans cells of the skin and their in vitro counterparts. The antigen is expressed at high levels by dendritic cells and thymic epithelial cells. The antigen detected by NLDC-145 is an integral membrane glycoprotein with an apparent mass of 205kDa, also known as DEC-205. Species: Mouse. Other species not tested.

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Add. Information: Molecular weight of antigen: 205 kDa.

Storage: Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.
Do not freeze working dilutions
Avoid repeated freezing and thawing.
Shelf life: One year from despatch.

General References:

1. Kraal, G., M. Breel, M. Janse, G. Bruin: Langerhans' cells, veiled cells, and interdigitating cells in the mouse recognized by a monoclonal antibody. *J Exp Med* 163: 981-987 (1986)
2. Breel, M., R.E. Mebius, G. Kraal: Dendritic cells of the mouse recognized by two monoclonal antibodies. *Eur J Immunol* 17: 1555-1559 (1987).
3. Swiggard, W.J., A. Mirza, M.C. Nussenzweig, R.M. Steinman: DEC-205, a 205kDa 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. *Cellular Immunology* 165, 302-311 (1995).
4. Martinez del Hoyo, G., P. Martín, H. Hernández Vargas, S. Ruiz, C. Fernández Arias, C. Ardavín: Characterization of a common precursor population for dendritic cells. *Nature* 415: 1043-47 (2002)

Pictures:

Organ	NLDC-145 staining	Cell type and localization
Spleen	+	IDC in inner PALS
Lymph node	+	IDC in paracortex VC in subcapsular sinus
Peyer's patch	+	IDC in interfollicular T cell areas Villum epithelium, isolated cells in submucosa (VC)
Thymus	+	IDC in medulla Cortical epithelium
Skin	+	Langerhans cells
Brain, Kidney, Liver, Heart	-	
In vitro isolated cells		
Blood, bone marrow	-	
Peritoneal cells	-	
Peritoneal exudate cells*	+	some positive cells (VC?)

* Peritoneal exudate cells were harvested 4 days after intraperitoneal thioglycollate injection.
Tests were carried out on BALB/c and C₃D₂F₁ mouse strains.
(G.Kraal et al. see ref. 1, modified)

Table 1. Antigen distribution.

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