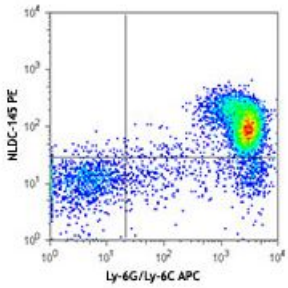
SONY

Product Data Sheet

PE anti-mouse CD205 (DEC-205)

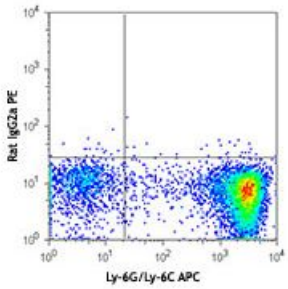
Catalog # / Size:	1291070 / 100 µg 1291065 / 25 µg
Clone:	NLDC-145
Isotype:	Rat IgG2a, κ
Immunogen:	Mouse lymph node tissue
Reactivity:	Mouse
Preparation:	The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Workshop Number:	HCDM listed
Concentration:	NULL



C57BL/6 mouse bone marrow cells were stained with Ly-6G/Ly-6C APC and CD205 (clone NLDC-145) PE (top) or rat IgG2a PE isotype control (bottom). Data shown was gated on the myeloid population.

Applications:

Applications:	Flow Cytometry
Recommended Usage:	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤0.03 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes:	Additional reported applications (for relevant formats) include: immunohistochemical staining of acetone-fixed frozen sections1, Western Blot[1-3], and immunoprecipitation of bone marrow dendritic cell extracts2.



Application References:

1. Witmer-Pack MD, *et al.* 1995. *Cell. Immun.* 163:157. (IHC, WB)
2. Swiggard WJ, *et al.* 1995. *Cell. Immun.* 165:302. (WB, IP)
3. Bonifaz LC, *et al.* 2004. *J. Exp. Med.* 199:815. (WB)
4. Yamazaki S, *et al.* 2002. *J. Immunol.* 181:6923. (FC)
5. Bankoti J, *et al.* 2010. *Toxicol. Sci.* 115:422. (FC)

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Description: CD205, also known as DEC-205, is a 205 kD integral membrane protein homologous to the macrophage mannose receptor. It is a type I cell surface protein that belong to the C-type lectin family. CD205 is expressed at high levels by dendritic cells and thymic epithelial cells. It is also expressed by a number of other cell types, such as B lymphocytes, macrophages, Langerhans cells, bone marrow stromal cells, granulocytes, epithelial cells of pulmonary airways, and the capillaries of the brain. CD205 is a novel endocytic receptor used by dendritic cells and thymic epithelial cells to direct captured antigens from the extracellular space to specialized antigen processing. It mediates antigen uptake and presentation and cross-presentation to T cells. It has been reported that CD205 acts as a recognition receptor for dying cells, potentially provides an important pathway for the uptake of self-antigen in the intrathymic environment, and is involved in peripheral tolerance. Antibody-mediated antigen-targeting via the DEC-205 receptor increases the efficiency of vaccination for T cell immunity.

Antigen References:

1. Jiang WP, *et al.* 1995. *Nature* 375:151.
2. Small M and Kraal G. 2003. *Int. Immunol.* 15:197.
3. Shrimpton RE, *et al.* 2009. *Mol. Immunol.* 46:1229.

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