EXBIO Antibodies

PRODUCT DATA SHEET

1P-669-T100

Monoclonal Antibody to CD205 Phycoerythrin (PE) conjugated (100 tests)

Clone: HD30

Isotype: Mouse IgG1

Specificity: The mouse monoclonal antibody HD30 recognizes CD205, an approx. 200 kDa C-type lectin transmembrane protein of the MMR (macrophage mannose receptor) family, expressed at high levels on dendritic cells and thymic epithelial cells, and at low levels on lymphocytes, NK cells and monocytes.

Regulatory Status: RUO

Immunogen: Recombinant Fc-tagged human CD205

Species Reactivity: Human

Preparation: The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.

Storage Buffer: The reagent is provided in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide.

Storage / Stability: Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.

Usage: The reagent is designed for Flow Cytometry analysis of human blood cells using 10 µl reagent / 100 µl of whole blood or 10^6 cells in a suspension.
The content of a vial (1 ml) is sufficient for 100 tests.

Expiration: See vial label

Lot Number: See vial label

Background: CD205, also known as DEC-205, is an endocytic receptor of macrophage mannose receptor family. This 205 kDa C-type lectin transmembrane protein mediates adsorptive uptake and its intracellular domain contains coated pit localization sequence and distal acidic motif, which is required for recycling beyond early endosomes through deeper MHC II+ late endosomes and lysosomes. This unique pathway of receptor-mediated uptake proves to be necessary for presentation of antigenic peptides at low doses of ligand. CD205 is responsible for uptake and processing of captured antigens for dendritic cells.

References:

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*Guo M, Gong S, Maric S, Misulovin Z, Pack M, Mahnke K, Nussenzweig MC, Steinman RM: A monoclonal antibody to the DEC-205 endocytosis receptor on human dendritic cells. Hum Immunol. 2000 Aug;61(8):729-38.
*Mahnke K, Guo M, Lee S, Sepulveda H, Swain SL, Nussenzweig M, Steinman RM: The dendritic cell receptor for endocytosis, DEC-205, can recycle and enhance antigen presentation via major histocompatibility complex class II-positive lysosomal compartments. J Cell Biol. 2000 Oct 30;151(3):673-84.
*Park CG, Rodriguez A, Ueta H, Lee H, Pack M, Matsuno K, Steinman RM: Generation of anti-human DEC205/CD205 monoclonal antibodies that recognize epitopes conserved in different mammals. 2012 Mar 30;377(1-2):15-22.

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