EXBIO Antibodies

PRODUCT DATA SHEET

11-669-C025

Monoclonal Antibody to CD205
Purified Antibody (0.025 mg)

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.

Immunogen: Recombinant Fc-tagged human CD205

Species Reactivity: Human

Application: Flow Cytometry
Western Blotting
Application note:only non-denatured samples
Immunohistochemistry (frozen sections)

Purity: > 95% (by SDS-PAGE)

Purification: Purified from cell culture supernatant by protein-A affinity chromatography.

Concentration: 1 mg/ml

Storage Buffer: Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4

Storage / Stability: Store at 2-8°C. Do not use after expiration date stamped on vial label. For long-term storage aliquot and store at -20°C. Avoid freeze/thaw cycles.

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:

*Gurer C, Strowig T, Brilot F, Pack M, Trumpfheller C, Arrey F, Park CG, Steinman RM, Münz C: Targeting the nuclear antigen 1 of Epstein-Barr virus to the human endocytic receptor DEC-205 stimulates protective T-cell responses. Blood. 2008 Aug 15;112(4):1231-9.
*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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EXBIO Praha | Nad Safinou II 341 | 252 42 Vestec u Prahy | Czech Republic
Tel: +420 261 090 664 | Fax: +420 261 090 660 | orders@exbio.cz | www.exbio.cz