

Anti-human CD2 Monoclonal Antibody Biotin Conjugated, Flow Validated

Catalog Number: FC00570-Biotin

Introduction

CD2 is a 50kD type I transmembrane glycoprotein and a member of the immunoglobulin superfamily. It is a specific marker for T lymphocytes, natural killer cells, thymic B cell subsets, and some antigen presenting cells. CD2 interacts with CD58 (LFA-3) and CD48 to mediate cell adhesion and induce co-stimulatory signals in T lymphocytes.

This antibody is routinely tested by flow cytometric analysis. Flow cytometry and other applications were tested during antibody development by CapricoBio or are reported in the literature.

Application Information

Each lot of this antibody has been pre-titrated and tested by flow cytometric analysis of human PBMCs such that 5ul of this product is sufficient for staining of 1 million cells in a 100ul staining volume or 100ul of whole blood. This biotin conjugated antibody can be easily detected by any fluorochrome conjugated streptavidin. It is recommended that antibody reactivity be empirically titrated for optimal performance in the application of interest.

About CD2

CD2 (cluster of differentiation 2) is a cell adhesion molecule found on the surface of T cells and natural killer (NK) cells. It has also been called T-cell surface antigen T11/Leu-5, LFA-2, LFA-3 receptor, erythrocyte receptor and rosette receptor. Monoclonal antibodies directed against CD2 inhibit the formation of rosettes with sheep erythrocytes, indicating that CD2 is the erythrocyte receptor or is closely associated with it. It is one of the earliest T-cell markers, being present on more than 95% of thymocytes; it is also found on some natural killer cells but not on B lymphocytes. Due to its structural characteristics, CD2 is a member of the immunoglobulin superfamily; it possesses two immunoglobulin-like domains in its extracellular portion. The localization of CD2 to 1p13 was established by in situ hybridization. By Southern blotting of DNA from a panel of somatic cell hybrids, Clayton et al. (1988) assigned the CD2 gene to human chromosome 1 and murine chromosome 3. CD2 interacts with other adhesion molecules, such as lymphocyte function-associated antigen-3 (LFA-3/CD58) in humans, or CD48 in rodents, which are expressed on the surfaces of other cells. With the use of transgenic mice, such an LCR was identified within the 3-prime flanking region of the human CD2 gene.

Overview

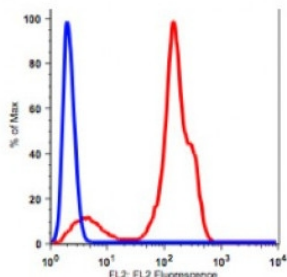
Product Name	Anti-human CD2 Monoclonal Antibody Biotin Conjugated, Flow Validated
Reactive Species	Human
Description	Boster Bio Anti-human CD2 Monoclonal Antibody Biotin Conjugated, Flow Validated (Catalog# FC00570-Biotin). Tested in Flow Cytometry application(s). This antibody reacts with Human.
Conjugate	Biotin
Application	Flow Cytometry
Clonality	Monoclonal Clone: OKT11
Formulation	#N/A

Storage Instructions	Store at 2-8°C. Avoid repeated freeze-thaw cycles.
Host	Mouse
Uniprot ID	P06729

Technical Details

Immunogen	Human acute lymphoblastic leukemia cells
Isotype	IgG1,k
Form	Liquid
Concentration	0.5-1mg/ml, actual concentration vary by lot. Use suggested dilution ratio to decide dilution procedure.
Purification	Protein A purified
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>User needs to optimize the dilution ratio for this antibody.</p>

Anti-human CD2 Monoclonal Antibody Biotin Conjugated, Flow Validated (FC00570-Biotin) Images



Lymphocytes gated PBMCs stained with anti-human CD2 Biotin (clone OKT 11) (red histogram) followed by a secondary staining with SA-PE. PBMCs stained with isotype IgG1 biotin followed by a secondary staining with SA-PE (Blue histogram) was used as control.

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