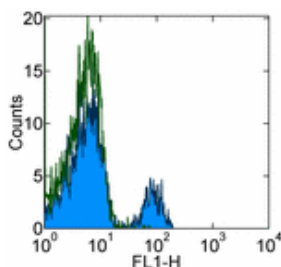


Anti-Human CD180 (RP105) Purified

Catalog Number: 14-1809

Also Known As: RP-105, Toll-like Receptor, TLR Family

RUO: For Research Use Only



Staining of normal human peripheral blood cells with 1 μ g of Mouse IgG1 κ Isotype Control Purified (cat. 14-4714) (open histogram) or 1 μ g of Anti-Human CD180 (RP105) Purified (filled histogram) followed by Anti-Mouse IgG FITC (cat. 11-4011). Cells in the lymphocyte gate were used for analysis.

Product Information

Contents: Anti-Human CD180 (RP105) Purified

REF Catalog Number: 14-1809

Clone: MHR73-11

Concentration: 0.5 mg/ml


Host/Isotype: Mouse IgG1, κ


HLDA Workshop: N/A

Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer

 Temperature Limitation: Store at 2-8°C.

LOT Batch Code: Refer to Vial

 Use By: Refer to Vial

 Caution, contains Azide

Description

The MHR73-11 monoclonal antibody reacts with human CD180 (RP105). This 105 kDa type I transmembrane molecule is a member of the TLR family of proteins characterized by an extracellular domain with leucine-rich repeats and a cytoplasmic domain with homology to the type I IL-1 receptor. RP105 physically associates with another molecule called MD-1 and is expressed on B, monocytes/macrophages, and dendritic cells. Histological studies show that RP105 is expressed mainly on mature B cells in mantle zones, while germinal center cells are either dull or negative. The RP105/MD-1 complex in concert with TLR4 mediates B cell recognition and signaling of LPS. MHR73-11 activates B cells, leading to increases in cell size, expression of the costimulatory molecule CD80, and DNA synthesis. Moreover, ligation of RP105 protects B cells from irradiation- or dexamethasone-induced apoptosis. Thus, RP105 is a signal transduction molecule and plays a role in regulation of B cell growth and death. A significant proportion of circulating B cells in SLE patients is RP105 negative. Loss of RP105 is associated with B cell activation and increased disease activity in SLE patients.

Applications Reported

MHR73-11 has been reported for use in flow cytometric analysis, immunoprecipitation, and immunohistochemical staining. MHR73-11 has also been reported in *in vitro* functional studies. (Please use Functional Grade purified MHR73-11, cat. 16-1809, in functional assays.)

Applications Tested

The MHR73-11 antibody has been tested by flow cytometric analysis of human peripheral blood leukocytes. This can be used at less than or equal to 1 μ g per test. A test is defined as the amount (μ g) of antibody that will stain a cell sample in a final volume of 100 μ L. Cell number should be determined empirically but can range from 10^5 to 10^8 cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

References

Koarada S, Tada Y, Ushiyama O, Morito F, Suzuki N, Ohta A, Miyake K, Kimoto M, Nagasawa K. B cells lacking RP105, a novel B cell antigen, in systemic lupus erythematosus. *Arthritis Rheum.* 1999 Dec;42(12):2593-600.

Miura Y, Shimazu R, Miyake K, Akashi S, Ogata H, Yamashita Y, Narisawa Y, Kimoto M. RP105 is associated with MD-1 and transmits an activation signal in human B cells. *Blood.* 1998 Oct 15;92(8):2815-22.

Miura Y, Miyake K, Yamashita Y, Shimazu R, Copeland NG, Gilbert DJ, Jenkins NA, Inazawa J, Abe T, Kimoto M. Molecular cloning of a human RP105 homologue and chromosomal localization of the mouse and human RP105 genes (Ly64 and LY64). *Genomics.* 1996 Dec 15;38(3):299-304

Related Products

11-4011 Anti-Mouse IgG FITC

11-4317 Streptavidin FITC

12-4317 Streptavidin PE
13-4013 Anti-Mouse IgG Biotin (Polyclonal)
14-4714 Mouse IgG1 K Isotype Control Purified
14-8185 B18R Recombinant Protein
17-4317 Streptavidin APC
34-8185 B18R Recombinant Protein Carrier-Free

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