full spectrum cell analysis®
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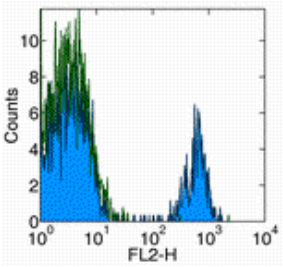
Anti-Human CD180 (RP105) Functional Grade Purified

Catalog Number: 16-1809
Also Known As:RP-105, Toll-like Receptor, TLR Family
RUO: For Research Use Only. Not for use in diagnostic procedures.



Surface staining of normal human peripheral blood cells with Anti-Human CD180 (RP105) PE. Appropriate isotype controls were used (open histogram). Cells in the lymphocyte population were used for analysis.

Product Information

Contents: Anti-Human CD180 (RP105) Functional Grade Purified
REF **Catalog Number:** 16-1809
Clone: MHR73-11
Concentration: 1 mg/mL
Host/Isotype: Mouse IgG1, kappa
HLDA Workshop: N/A
Handling Conditions: Use in sterile environment.
Endotoxin Level: Less than 0.001 ng/ug antibody, as determined by the LAL assay.

Formulation: aqueous buffer, no sodium azide
Temperature Limitation: Store at 2-8°C.
LOT **Batch Code:** Refer to Vial
Use By: Refer to Vial

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. MHR73-11 has also been reported in *in vitro* functional studies.

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 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. 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

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Related Products
11-4011 Anti-Mouse IgG FITC
11-4317 Streptavidin FITC
12-4317 Streptavidin PE
13-4013 Anti-Mouse IgG Biotin (Polyclonal)
14-8185 B18R Recombinant Protein
16-4714 Mouse IgG1 K Isotype Control Functional Grade Purified (P3.6.2.1)
17-4317 Streptavidin APC
34-8185 B18R Recombinant Protein Carrier-Free