

Product Information

Contents: Functional Grade Purified anti-human CD180 (RP105, Toll-like Receptor/ TLR Family)

Catalog Number: 16-1809

Sizes: 100 ug

Formulation: Phosphate buffer pH 7.2,
150 mM NaCl, No NaN₃

Storage Conditions: Store at 4°C.

Avoid repeated freeze/thaw cycles.

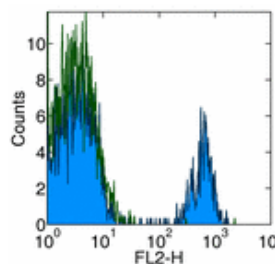
KEEP CONTENT STERILE.

Endotoxin Level: Less than 0.001 ng/ug antibody, as determined by the LAL assay.

Clone: MHR73-11

Isotype: Mouse IgG1, κ

HLDA No.: N/A



Surface staining of normal human peripheral blood cells with anti-human CD180 (MHR73-11) PE. Appropriate isotype controls were used (open histogram). Cells in the lymphocyte population were used for analysis.

Available Formats of This Product

Cat. No.	Format	Excite (nm)	Emit (nm)	Reported Applications
12-1809	PE anti-human CD180 (RP105, Toll-like Receptor/ TLR Family)	488	575	FC
13-1809	Biotin anti-human CD180 (RP105, Toll-like Receptor/ TLR Family)	N/A	N/A	FC
14-1809	Affinity Purified anti-human CD180 (RP105, Toll-like Receptor/ TLR Family)	N/A	N/A	FA FC IHC IP
16-1809	Functional Grade* Purified anti-human CD180 (RP105, Toll-like Receptor/ TLR Family)	N/A	N/A	FA FC

*Functional Grade™ (FG™): Azide-free, sterile-filtered, and endotoxin < 0.001 ng/μg.

Purified: Contains azide, not sterile-filtered, and not endotoxin tested.

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.

Usage

For research use only, not for diagnostic or therapeutic use. 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 100 μl blood (or per 1 million cells in 100 μl total staining volume). It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Related Products

Cat. 12-1809 PE anti-human CD180 (RP105, Toll-like Receptor/ TLR Family) (clone MHR73-11)

- Cat. 13-1809 Biotin anti-human CD180 (RP105, Toll-like Receptor/ TLR Family) (clone MHR73-11)
- Cat. 14-1809 Affinity Purified anti-human CD180 (RP105, Toll-like Receptor/ TLR Family) (clone MHR73-11)
- Cat. 11-4011 FITC Anti-Mouse IgG
- Cat. 13-4013 Biotin Anti-Mouse IgG (clone Polyclonal)
- Cat. 11-4317 Streptavidin-FITC (Fluorescein isothiocyanate)
- Cat. 12-4317 Streptavidin-PE (Phycoerythrin)
- Cat. 17-4317 Streptavidin Allophycocyanin (SA-APC)
- Cat. 16-4714 Functional Grade Purified Mouse IgG1, K Isotype Control

References

- Koarada, S., Y. Tada, et al. 1999. B cells lacking RP105, a novel B cell antigen, in systemic lupus erythematosus. *Arthritis Rheum* 42 (12): 2593-600.
- Miura, Y., K. Miyake, et al. 1996. Molecular cloning of a human RP105 homologue and chromosomal localization of the mouse and human RP105 genes (Ly64 and LY64). *Genomics* 38(3): 299-304.
- Miura, Y., R. Shimazu, et al. 1998. RP105 is associated with MD-1 and transmits an activation signal in human B cells. *Blood* 92(8): 2815-22.