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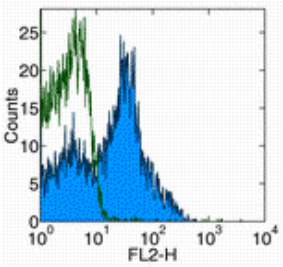
Anti-Mouse CD180 (RP105) Functional Grade Purified

Catalog Number: 16-1801
Also Known As:RP-105, Toll-like Receptor, TLR Family, LY-78
RUO: For Research Use Only



Staining of mouse splenocytes with anti-mouse CD180 (RP/14) PE. Appropriate isotype controls were used (open histogram). Total viable cells were used for analysis.

Product Information

Contents: Anti-Mouse CD180 (RP105) Functional Grade Purified
REF **Catalog Number:** 16-1801
Clone: RP/14
Concentration: 1 mg/ml
Host/Isotype: Rat IgG2a, κ
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 RP/14 monoclonal antibody reacts with mouse 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 mature B cells, monocytes/macrophages and dendritic cells. Ligation of RP105 with RP/14 protects B cells from irradiation- or dexamethasone-induced apoptosis, and drives them to proliferate. B cells activated by RP105-ligation arrest their growth and undergo apoptosis when the antigen receptor is engaged. The RP105/MD-1 complex in concert with TLR4 mediates B cell recognition and signaling of LPS. Thus, RP105 is a signal transduction molecule and plays a role in regulation of B cell growth and death.

Applications Reported

The RP/14 antibody has been reported for use in flow cytometric analysis. It has also been reported in B cell activation in functional studies.

Applications Tested

The RP/14 antibody has been tested by flow cytometric analysis of mouse splenocyte suspensions. This can be used at less than or equal to 0.5 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

Miyake, K., Y. Yamashita, et al. 1995. RP105, a novel B cell surface molecule implicated in B cell activation, is a member of the leucine-rich repeat protein family. J Immunol 154(7): 3333-40.
Miyake, K., R. Shimazu, et al. 1998. Mouse MD-1, a molecule that is physically associated with RP105 and positively regulates its expression. J Immunol 161(3): 1348-53.
Ogata, H., I. Su, et al. 2000. The toll-like receptor protein RP105 regulates lipopolysaccharide signaling in B cells. J Exp Med 192(1): 23-9.

Related Products

11-4317 Streptavidin FITC
11-4811 Anti-Rat IgG FITC
12-4317 Streptavidin PE

13-4813 Anti-Rat IgG Biotin (Polyclonal)
14-8185 B18R Recombinant Protein
16-4321 Rat IgG2a K Isotype Control Functional Grade Purified
17-4317 Streptavidin APC
34-8185 B18R Recombinant Protein Carrier-Free

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