

Product Information

Contents: Phycoerythrin (PE) anti-mouse CD180 (RP105, Toll-like Receptor/ TLR Family)

Catalog Number: 12-1801

Sizes: 50 ug, 100 ug, 200 ug

Formulation: Phosphate buffer pH 7.2,
150 mM NaCl, 0.09% NaN₃

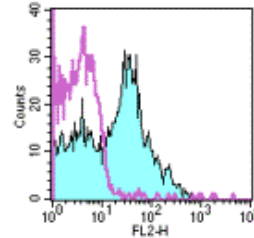
Storage Conditions: Store at 4°C.

DO NOT FREEZE.

LIGHT-SENSITIVE MATERIAL.

Clone: RP/14

Isotype: Rat IgG2a, κ



Staining of BALB/c splenocytes with 0.06 µg of PE rat IgG2a isotype control (cat. 12-4321) (open histogram) or 0.125 µg of PE RP/14 (colored histogram). Total viable cells were used for analysis.

Available Formats of This Product				
Cat. No.	Format	Excite (nm)	Emit (nm)	Reported Applications
12-1801	PE anti-mouse CD180 (RP105, Toll-like Receptor/ TLR Family)	488	575	FC
13-1801	Biotin anti-mouse CD180 (RP105, Toll-like Receptor/ TLR Family)	N/A	N/A	FC
14-1801	Affinity Purified anti-mouse CD180 (RP105, Toll-like Receptor/ TLR Family)	N/A	N/A	FA FC IP
16-1801	Functional Grade* Purified anti-mouse 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 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.

Usage

For research use only, not for diagnostic or therapeutic use. The RP/14 antibody has been reported for use in flow cytometric analysis.

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 0.125 µg per million cells in a 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. 13-1801 Biotin anti-mouse CD180 (RP105, Toll-like Receptor/ TLR Family) (clone RP/14)
- Cat. 14-1801 Affinity Purified anti-mouse CD180 (RP105, Toll-like Receptor/ TLR Family) (clone RP/14)
- Cat. 16-1801 Functional Grade Purified anti-mouse CD180 (RP105, Toll-like Receptor/ TLR Family) (clone RP/14)
- Cat. 12-4321 PE Rat IgG2a Isotype Control

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.