

1P-637-T100

## Monoclonal Antibody to CD180 Phycoerythrin (PE) conjugated (100 tests)

<b>Clone:</b>	G28-8
<b>Isotype:</b>	Mouse IgG1
<b>Specificity:</b>	The mouse monoclonal antibody G28-8 recognizes CD180, a 95-105 kDa TLR-like glycoprotein expressed on peripheral blood monocytes and dendritic cells, mantle zone B cells and marginal zone B cells, but very weakly on germinal center B cells.
<b>Regulatory Status:</b>	RUO
<b>Immunogen:</b>	Human tonsillar B cells
<b>Species Reactivity:</b>	Human
<b>Preparation:</b>	The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
<b>Storage Buffer:</b>	The reagent is provided in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide.
<b>Storage / Stability:</b>	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.
<b>Usage:</b>	The reagent is designed for Flow Cytometry analysis of human blood cells using 20 µl reagent / 100 µl of whole blood or 10 <sup>6</sup> cells in a suspension. The content of a vial (2 ml) is sufficient for 100 tests.
<b>Expiration:</b>	See vial label
<b>Lot Number:</b>	See vial label
<b>Background:</b>	CD180, also known as RP105 (or Bgp95, LY64) is a type I membrane glycoprotein of Toll-like receptor (TLR) family. Its cytoplasmic tail is short and unlike the TLRs, it lacks the TIR domain. CD180 expression is dependent on the coexpression of its helper molecule, MD-1, and mirrors that of TLR4 on antigen-presenting cells. CD180 regulates recognition of LPS and signaling in B cells, via interacting directly with the TLR4 signaling complex, inhibiting its ability to bind microbial ligands. Ligation of CD180 by monoclonal antibodies leads to B cell activation, upregulation of CD80/CD86, and increase in cell size.

**For laboratory research only, not for drug, diagnostic or other use.**

**Antibodies****References:**

- \*Divanovic S, Trompette A, Atabani SF, Madan R, Golenbock DT, Visintin A, Finberg RW, Tarakhovsky A, Vogel SN, Belkaid Y, Kurt-Jones EA, Karp CL: Negative regulation of Toll-like receptor 4 signaling by the Toll-like receptor homolog RP105. *Nat Immunol.* 2005 Jun;6(6):571-8.
- \*Yazawa N, Fujimoto M, Sato S, Miyake K, Asano N, Nagai Y, Takeuchi O, Takeda K, Okochi H, Akira S, Tedder TF, Tamaki K: CD19 regulates innate immunity by the toll-like receptor RP105 signaling in B lymphocytes. *Blood.* 2003 Aug 15;102(4):1374-80.
- \*Divanovic S, Trompette A, Petiniot LK, Allen JL, Flick LM, Belkaid Y, Madan R, Haky JJ, Karp CL: Regulation of TLR4 signaling and the host interface with pathogens and danger: the role of RP105. *J Leukoc Biol.* 2007 Aug;82(2):265-71.
- \*Kikuchi Y, Koarada S, Tada Y, Ushiyama O, Morito F, Suzuki N, Ohta A, Horiuchi T, Miyake K, Nagasawa K: Difference in B cell activation between dermatomyositis and polymyositis: analysis of the expression of RP105 on peripheral blood B cells. *Ann Rheum Dis.* 2001 Dec;60(12):1137-40.
- \*Valentine MA, Clark EA, Shu GL, Norris NA, Ledbetter JA: Antibody to a novel 95-kDa surface glycoprotein on human B cells induces calcium mobilization and B cell activation. *J Immunol.* 1988 Jun 15;140(12):4071-8.
- \*Clark EA, Shu GL, Lüscher B, Draves KE, Banchereau J, Ledbetter JA, Valentine MA: Activation of human B cells. Comparison of the signal transduced by IL-4 to four different competence signals. *J Immunol.* 1989 Dec 15;143(12):3873-80.
- \*Olson NE, Graves JD, Shu GL, Ryan EJ, Clark EA: Caspase activity is required for stimulated B lymphocytes to enter the cell cycle. *J Immunol.* 2003 Jun 15;170(12):6065-72.

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