



11-637-C100

## Monoclonal Antibody to CD180 Purified Antibody (0.1 mg)

<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>Application:</b>	Flow Cytometry Recommended dilution: 2 µg/ml Immunoprecipitation Functional Application induction of B cell proliferation
<b>Purity:</b>	> 95% (by SDS-PAGE)
<b>Purification:</b>	Purified by protein-A affinity chromatography
<b>Concentration:</b>	1 mg/ml
<b>Storage Buffer:</b>	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
<b>Storage / Stability:</b>	Store at 2-8°C. Do not freeze. Do not use after expiration date stamped on vial label.
<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, Tarakhovskiy 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.
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- \*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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EXBIO Praha | Nad Safinou II 341 | 252 50 Vestec u Prahy | Czech Republic  
Tel: +420 261 090 666 | Fax: +420 261 090 660 | [orders@exbio.cz](mailto:orders@exbio.cz) | [www.exbio.cz](http://www.exbio.cz)