

Technical Data Sheet

Purified NA/LE Rat Anti-Mouse CD180

Product Information

Material Number:	562191
Alternate Name:	Ly78; Ly-78; Lymphocyte antigen 78; RP105; Radioprotective 105 kDa protein
Size:	0.5 mg
Concentration:	1.0 mg/ml
Clone:	RP/14
Immunogen:	BALB/c mouse splenocytes
Isotype:	Rat (WI) IgG2a, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	No azide/low endotoxin: Aqueous buffered solution containing no preservative, 0.2 μ m sterile filtered. Endotoxin level is ≤ 0.01 EU/ μ g (≤ 0.001 ng/ μ g) of protein as determined by the LAL assay.

Description

The RP/14 antibody reacts with CD180, the "radioprotective" 105 kDa (RP105) antigen expressed on mature B lymphocytes. Like other members of the Toll-like Receptor (TLR) family, the extracellular region of CD180 contains tandem repeats of a leucine-rich motif flanked by regions containing conserved cysteines. These characteristic structural components of TLR may mediate protein-protein interactions and regulation of signal transduction involved in innate immune responses. Furthermore, CD180 associates with the secretory protein MD-1 on the cell surface. Cross-linking of cell-surface CD180 with the RP/14 antibody induces activation signals in B lymphocytes. Despite the expression of CD180 on lymphocytes of all strains tested (BALB/c, BALB/c.*xid*, C3H, C57BL/6, CBA/N, and 129/Sv), some strains (BALB/c.*xid*, C57BL/6.*xid*, CBA/N, 129/Sv, and 129/Ola) display deficient responses to that stimulatory effects of mAb RP/14.

Preparation and Storage

Store undiluted at 4°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

This preparation contains no preservatives, thus it should be handled under aseptic conditions.

Application Notes

Application

Flow cytometry	Routinely Tested
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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Chan VW, Mecklenbrauker I, Su I, et al. The molecular mechanism of B cell activation by toll-like receptor protein RP-105. *J Exp Med.* 1998; 188(1):93-101. (Biology)

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Ogata H, Su I, Miyake K, et al. The toll-like receptor protein RP105 regulates lipopolysaccharide signaling in B cells. *J Exp Med.* 2000; 192(1):23-29. (Biology)

Yamashita Y, Miyake K, Miura Y, et al. Activation mediated by RP105 but not CD40 makes normal B cells susceptible to anti-IgM-induced apoptosis: a role for Fc receptor coligation. *J Exp Med.* 1996; 184(1):113-120. (Biology)

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