

Technical Data Sheet

PE Rat Anti-Mouse CD132

Product Information

Material Number:	554471
Alternate Name:	Interleukin Common γ chain, γc
Size:	0.2 mg
Concentration:	0.2 mg/ml
Clone:	TUGm2
Isotype:	Rat (WI) IgG2b, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

The TUGm2 antibody reacts with Mouse CD132 which is also known as the common γ subunit (γc). The γc chain subunit is shared by the IL-2, IL-4, IL-7, IL-9, and IL-15 receptor complexes. The γc receptor is expressed constitutively at low levels by most lymphocytes, myeloid cells, embryonic thymocytes, and lymphoid cell lines. The γc receptor is a 75-80 kD transmembrane glycoprotein which mediates signal transducing activities of cytokine receptor complexes with which it is associated. TUGm2 antibody can significantly block the binding of and proliferative response to IL-4 by CTLL-2 cells. It can also inhibit binding to high-affinity IL-2 receptors expressed by CTLL-2 cells. By itself, the TUGm2 antibody reportedly fails to significantly inhibit CTLL-2 proliferative responses to IL-2. However, when added along with TM- $\beta 1$ (Cat. No. 553359), specific for the mouse IL-2R β chain, TUGm2 was shown to synergistically reduce IL-2-driven CTLL-2 proliferative responses. TUGm2 can reduce the IL-7-induced proliferation of Con A-activated mouse splenocytes and the IL-7 responsive pre-B cell line, IxN/2b.

Preparation and Storage

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

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

Flow cytometry	Routinely Tested
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Recommended Assay Procedure:

PE- conjugated clone TUGm2 can be used for immunofluorescent staining with flow cytometric analysis. An appropriate isotype control is Cat. No. 553989. The no azide/low endotoxin format of the TUGm2 antibody, useful for blocking or neutralization studies, is Cat. No. 554469.

Suggested Companion Products

Catalog Number	Name	Size	Clone
553989	PE Rat IgG2b, κ Isotype Control	0.1 mg	A95-1

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.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

Kondo M, Takeshita T, Higuchi M, et al. Functional participation of the IL-2 receptor gamma chain in IL-7 receptor complexes. *Science*. 1994; 263(5152):1453-1454. (Clone-specific)
 Kondo M, Takeshita T, Ishii N, et al. Sharing of the interleukin-2 (IL-2) receptor gamma chain between receptors for IL-2 and IL-4. *Science*. 1993; 262(5141):1874-1877. (Clone-specific: Blocking, Neutralization)

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