Technical Data Sheet

Purified Rat Anti-Human CD132

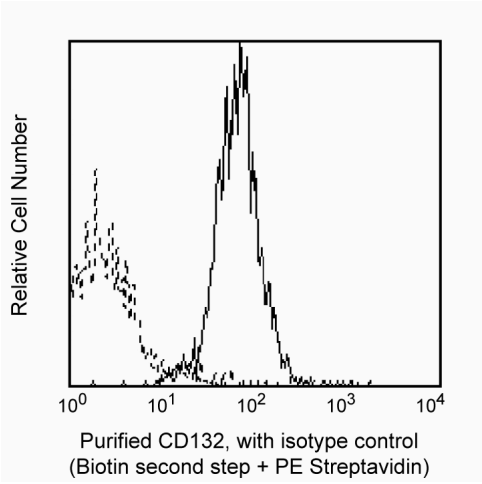
Product Information

Material Number:	**555896**
Alternate Name:	common γ chain
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	TUGh4
Isotype:	Rat IgG2b, κ
Reactivity:	QC Testing: Human Tested in Development: Dog
Workshop:	VI C-89
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

This antibody reacts with the 65-70 kDa common γ subunit (γc) shared by the IL-2, IL-4, IL-7, IL-9, and IL-15 receptors. The γc receptor is a glycoprotein expressed by most peripheral T and B lymphocytes, NK cells, monocytes, and granulocytes. The cytoplasmic domain of the γc chain plays an important role in cytokine-mediated signal transduction. By immunofluorescent staining and flow cytometric analysis, the TUGh4 antibody has been shown to specifically recognize human γc expressed by cell lines, including human γc gene-transfected cell lines, which are known to express the human γc chain. Clone TUGh4 recognizes a different epitope from clone AG184 (Cat. No. 555900).

This antibody is routinely tested by flow cytometric analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



Profile of peripheral blood lymphocytes analyzed on a FACScan (BDIS, San Jose, CA)

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at 4° C.

Application Notes

Application

Flow cytometry	Routinely Tested

Recommended Assay Procedure:

This reagent is effective for indirect immunofluorescence staining of human tissue for flow cytometric analysis. For flow cytometric applications, a three step labelling procedure is recommended for amplifying signal.

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Suggested protocol for 3-step staining using Lysed Whole Blood method:

1. Incubate 100 µl whole blood with primary (unconjugated) antibody for 20-30 minutes at room temperature.
2. Add 2 mls of 1X Pharm Lyse (10X Pharm Lyse, Cat. No. 555899) and incubate for 10-15 minutes. Centrifuge and aspirate.
3. Wash once with PBS/0.1% sodium azide/ 1% heat-inactivated fetal bovine serum (PBS-FBS). Centrifuge and aspirate.
4. Add biotinylated mouse anti-rat Ig's (Cat. No. 553883) and incubate for 20-30 minutes at room temperature.
5. Wash once with PBS-FBS. Centrifuge and aspirate.
6. Add SAV-PE (Cat. No. 554061) and incubate for 20-30 minutes in the dark at room temperature.
7. Wash once with PBS-FBS. Centrifuge and aspirate Resuspend in 0.5 ml of PBS-FBS and analyze by flow cytometry.

Suggested Companion Products

Catalog Number	Name	Size	Clone
555899	Lysing Buffer	100 ml	(none)
554061	Streptavidin PE	0.5 mg	(none)
555846	Purified Rat IgG2b, κ Isotype Control	0.1 mg	R35-38
554014	Biotin Goat Anti-Rat Specific Polyclonal Antibody	0.5 mg	Polyclonal

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. 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

Kishimoto T, von dem Borne AEG, Goyert SM,et al., ed. *Leucocyte Typing VI: White Cell Differentiation Antigens.* London: Garland Publishing; 1997. (Clone-specific)

Ishii N, Kondo M, Takeshita T, and Sugamura K. mAb specific for the γ chain of the IL-2 receptor. In: Schlossman SF, Boumsell L, Gilks W, et al, ed. *Leukocyte Typing V: White Cell Differentiation Antigens.* Oxford: Oxford University Press; 1995:1867-1868.(Biology)

Ishii N, Takeshita T, Kimura Y, et al. Expression of the IL-2 receptor gamma chain on various populations in human peripheral blood. *Int Immunol.* 1994; 6(8):1273-1277.(Biology)

Matsuoka M, Takeshita T, Ishii N, Nakamura M, Ohkubo T, Sugamura K. Kinetic study of interleukin-2 binding on the reconstituted interleukin-2 receptor complexes including the human gamma chain. *Eur J Immunol.* 1993; 23(10):2472-2476.(Biology)