

Technical Data Sheet

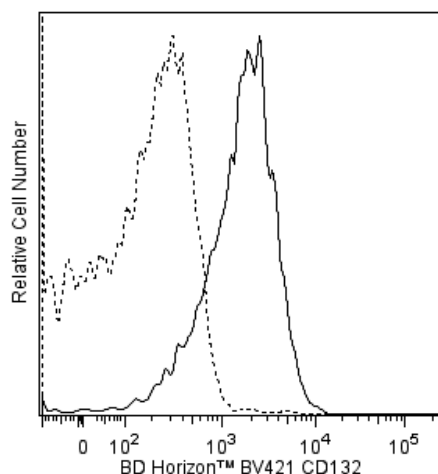
BV421 Mouse Anti-Human CD132**Product Information**

Material Number:	562881
Alternate Name:	IL2RG; IL-2RG; IL-2R γ ; Common gamma chain; γ c; CIDX; SCIDX; SCIDX1; IMD4
Size:	50 tests
Vol. per Test:	5 μ l
Clone:	AG184
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Workshop:	VI C-100
Storage Buffer:	Aqueous buffered solution containing BSA and $\leq 0.09\%$ sodium azide.

Description

The AG184 monoclonal antibody specifically binds to the 65-70 kDa common γ subunit (γ c) that is shared by the IL-2, IL-4, IL-7, IL-9, IL-15 and IL-21 receptor complexes. The γ c receptor is a type I transmembrane glycoprotein that is constitutively expressed by most peripheral T and B lymphocytes, NK cells, monocytes and granulocytes. The cytoplasmic domain of the γ c chain plays an important role in cytokine-mediated signal transduction. By immunofluorescent staining and flow cytometric analyses, the AG184 antibody has been shown to specifically recognize human γ c expressed by cell lines including human γ c gene-transfected cell lines which are known to express the human γ c chain. The AG184 antibody can bind the γ c chain in the receptors complexed with IL-2, IL-4, or IL-7, indicating that the antibody recognizes an epitope which is distinct from the cytokine binding site of the γ c chain.

The antibody was conjugated to BD Horizon™ BV421 which is part of the BD Horizon™ Brilliant Violet™ family of dyes. With an Ex Max of 407-nm and Em Max at 421-nm, BD Horizon™ BV421 can be excited by the violet laser and detected in the standard Pacific Blue™ filter set (eg, 450/50-nm filter). BD Horizon™ BV421 conjugates are very bright, often exhibiting a 10 fold improvement in brightness compared to Pacific Blue™ conjugates.



Flow cytometric analysis of CD132 expression on human peripheral blood mononuclear cells. Human peripheral blood mononuclear cells were stained with either a BD Horizon™ BV421 Mouse IgG1, κ Isotype Control (Cat. No. 562438; dashed line histogram) or with BD Horizon™ BV421 Mouse Anti-Human CD132 antibody (Cat. No. 562881; solid line histogram). Erythrocytes were lysed with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899). The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable lymphocytes. Flow cytometry was performed using a BD™ LSR II Flow Cytometer System.

Preparation and Storage

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

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

The antibody was conjugated with BD Horizon™ BV421 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV421 were removed.

Application Notes**Application**

Flow cytometry

Routinely Tested

Suggested Companion Products**BD Biosciences**

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Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 ml	(none)
555899	Lysing Buffer	100 ml	(none)
562438	BV421 Mouse IgG1, k Isotype Control	50 µg	X40

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1×10^6 cells in a 100-µl experimental sample (a test).
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. An isotype control should be used at the same concentration as the antibody of interest.
4. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.
5. 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.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
7. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.
8. Brilliant Violet™ 421 is a trademark of Sirigen.

References

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)

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

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)

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