

Technical Data Sheet

BV421 Mouse Anti-Human CD25

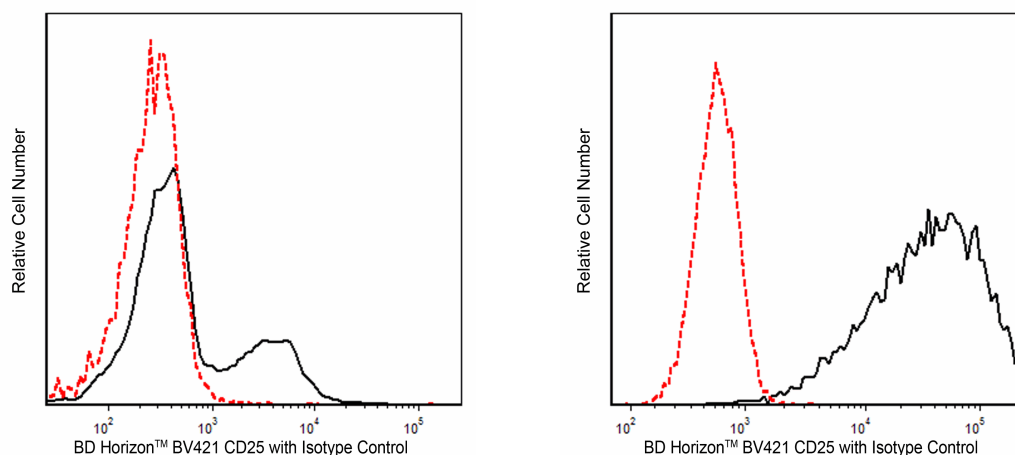
Product Information

Material Number:	562443
Alternate Name:	IL-2R; IL2RA; IL-2R α ; TCGFR; TAC antigen; p55
Size:	25 tests
Vol. per Test:	5 μ l
Clone:	M-A251
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Workshop:	IV A053
Storage Buffer:	Aqueous buffered solution containing BSA and $\leq 0.09\%$ sodium azide.

Description

The M-A251 monoclonal antibody specifically binds to the 55 kDa type I transmembrane glycoprotein known as the low-affinity interleukin-2 receptor alpha chain subunit (IL-2R α). CD25 is expressed on regulatory T cells and on activated lymphocytes (T and B) and monocytes. It associates with the IL-2R β /CD122 and the IL-2R γ /CD132 receptor chains to form the high-affinity IL-2R complex. CD25 expression on T and B lymphocytes is upregulated by antigenic or mitogenic stimulation. Soluble CD25/IL-2R α is produced as a consequence of lymphocyte stimulation and is found in biological fluids following inflammatory responses.

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 CD25 expression on unstimulated and stimulated human peripheral blood lymphocytes.**

Left Panel: Whole blood was stained with either BD Horizon™ BV421 Mouse IgG1, κ Isotype Control (Cat. No. 562438; dashed line histogram) or BD Horizon™ BV421 Mouse Anti-Human CD25 antibody (Cat. No. 562442/562443; solid line histogram). The erythrocytes were subsequently lysed with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899).

Right Panel: Phytohemagglutinin-stimulated (3 days) human peripheral blood mononuclear cells were stained with either BD Horizon™ BV421 Mouse Anti-Human CD25 antibody (solid line histogram) or with BD Horizon™ BV421 Mouse IgG1, κ Isotype Control (dashed line histogram).

The fluorescence histograms showing CD25 expression (or Ig Isotype control staining) were derived from gated events with the forward and side light-scatter characteristics of viable lymphocytes (Left Panel) or lymphoblasts (Right Panel). Flow cytometric analysis was performed using a BD FACSCanto™ 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.

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Application Notes

Application

Flow cytometry

Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 ml	(none)
555899	Lysing Buffer	100 ml	(none)
562442	BV421 Mouse Anti-Human CD25	100 tests	M-A251
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. An isotype control should be used at the same concentration as the antibody of interest.
3. Brilliant Violet™ 421 is a trademark of Sirigen.
4. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.
5. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
6. 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.
7. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
8. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Knapp W, Dörken B, Gilks WR, et al, ed. *Leucocyte Typing IV*. New York, NY: Oxford University Press; 1989:1-1182. (Clone-specific)

Schlossman SF, Boumsell L, Gilks W, et al, ed. *Leucocyte Typing V: White Cell Differentiation Antigens*. New York: Oxford University Press; 1995. (Biology)

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