

Technical Data Sheet

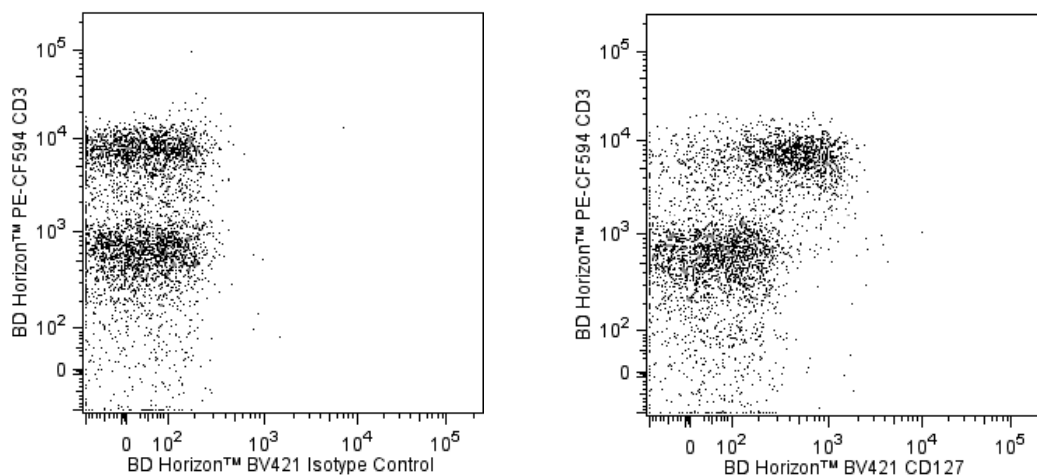
BV421 Rat Anti-Mouse CD127**Product Information**

Material Number:	562959
Alternate Name:	Interleukin-7 receptor alpha chain; IL-7R alpha; IL-7RA; IL-7Rα; IL7r
Size:	50 µg
Concentration:	0.2 mg/ml
Clone:	SB/199
Immunogen:	BALB/c mouse pre-B cell line 1A9
Isotype:	Rat IgG2b, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The SB/199 monoclonal antibody specifically binds to mouse CD127, the 65-75 kDa type-I transmembrane protein IL-7Rα. The high affinity IL-7 receptor complex is composed of at least two transmembrane proteins, IL-7Rα and CD132, the common γ chain. CD127 has some sequence homology to the cytokine receptor superfamily (also known as the hematopoietin receptor superfamily). Mice lacking CD127 display profoundly impaired development of the B and T lymphoid cell lineages, but display no obvious non-lymphoid abnormalities. IL-7Rα is expressed on common lymphoid progenitors and early stages of B lineage development in the bone marrow, on the earliest thymocyte progenitors, on CD4-CD8- double-negative and CD4+ and CD8+ single-positive thymocytes, and on most peripheral T lymphocytes. Intestinal intraepithelial lymphocytes with low-density γδ TCR upregulate CD127 expression in response to IL-2, which may be secreted by neighboring αβ TCR-bearing T cells.

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 CD127 expression on BALB/c mouse splenocytes. Splenic leucocytes from a BALB/c mouse were stained with BD Horizon™ PE-CF594 Hamster Anti-Mouse CD3e antibody (Cat. No. 562286/562332) and either BD Horizon™ BV421 Rat IgG2b, κ Isotype Control (Cat. No. 562603, left panel) or BD Horizon™ BV421 Rat Anti-Mouse CD127 antibody (Cat. No. 562959, right panel). Two-color flow cytometric dot plots show the correlated expression patterns of CD127 (or Ig Isotype control staining) versus CD3 for gated events with the forward and side light-scatter characteristics of viable splenic leucocytes. 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.

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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)
562603	BV421 Rat IgG2b, κ Isotype Control	50 μ g	R35-38
562286	PE-CF594 Hamster Anti-Mouse CD3e	0.1 mg	145-2C11
562332	PE-CF594 Hamster Anti-Mouse CD3e	25 μ g	145-2C11

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
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/pharmingen/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

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