Technical Data Sheet

V450 Rat Anti-Mouse CD127

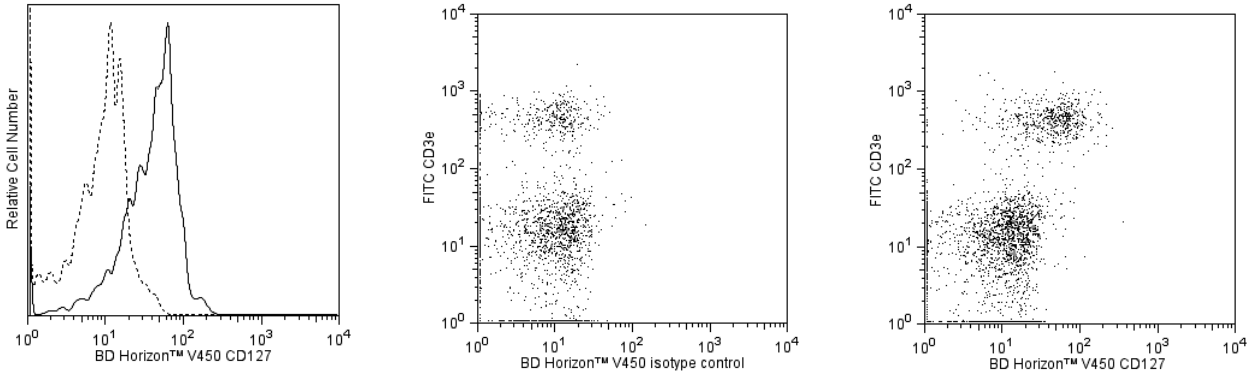
Product Information

Material Number:	**561205**
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 protein stabilizer 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 is conjugated to BD Horizon™ V450, which has been developed for use in multicolor flow cytometry experiments and is available exclusively from BD Biosciences. It is excited by the Violet laser Ex max of 406 nm and has an Em Max at 450 nm. Conjugates with BD Horizon™ V450 can be used in place of Pacific Blue™ conjugates.



Flow cytometric analysis of CD127 expression on BALB/c mouse splenocytes.

Left Panel: *Splenocytes from BALB/c mice were stained with FITC Hamster Anti-Mouse CD3e antibody (Cat.No. 553062) and either BD Horizon™ V450 Rat IgG2b, κ Isotype Control (Cat. No. 560457, dashed line histogram) or with the BD Horizon™ V450 Rat Anti-Mouse CD127 antibody (Cat. No. 561205, solid line histogram). Histograms were derived from CD3e-positive gated events with the light scattering characteristics of viable lymphocytes.*

Middle and Right Panels: *Splenocytes from BALB/c mice were stained with FITC Hamster Anti-Mouse CD3e antibody (Cat.No. 553062) and with either a BD Horizon™ V450 Rat IgG2b, κ isotype control (middle panel) or the BD Horizon™ V450 Rat Anti-Mouse CD127 antibody (right panel). Dot plots were derived from gated events based on light scattering characteristics for viable lymphocytes. Flow cytometry was performed using a BD™ LSR II Flow Cytometry System.*

Preparation and Storage

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

The antibody was conjugated with BD Horizon™ V450 under optimum conditions, and unreacted BD Horizon™ V450 was removed.

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

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Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
560457	V450 Rat IgG2b, κ Isotype Control	0.1 mg	A95-1
554656	Stain Buffer (FBS)	500 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
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.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
6. BD Horizon™ V450 has a maximum absorption of 406 nm and maximum emission of 450 nm. Before staining with this reagent, please confirm that your flow cytometer is capable of exciting the fluorochrome and discriminating the resulting fluorescence.
7. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.

References

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