

Technical Data Sheet

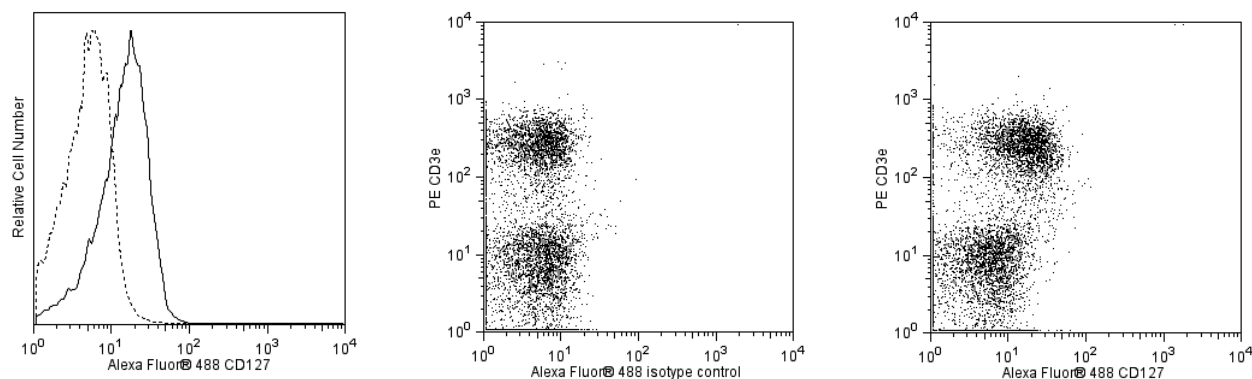
Alexa Fluor® 488 Rat Anti-Mouse CD127

Product Information

Material Number:	561533
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 ≤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.

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

Left Panel: Splenocytes from BALB/c mice were stained with APC Hamster anti-Mouse CD3e antibody (Cat.No. 553066) and either Alexa Fluor® 488 Rat IgG2b, κ Isotype Control (Cat. No. 557726, dashed line histogram) or with the Alexa Fluor® 488 Rat anti-Mouse CD127 antibody (Cat. No. 561533, 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 APC Hamster anti-Mouse CD3e antibody (Cat.No. 553066) and with either Alexa Fluor® 488 Rat IgG2b, κ isotype control (middle panel) or the Alexa Fluor® 488 Rat anti-Mouse CD127 antibody (right panel). Dot plots were derived from gated events based on light scattering characteristics for viable spleen cells. Flow cytometry was performed using a BD™ LSR II Flow Cytometry 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 to Alexa Fluor® 488 under optimum conditions, and unreacted Alexa Fluor® 488 was removed.

Application Notes

Application

Flow cytometry	Routinely Tested
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Suggested Companion Products

Catalog Number	Name	Size	Clone
557726	Alexa Fluor® 488 Rat IgG2b, κ Isotype Control	0.1 mg	A95-1
554656	Stain Buffer (FBS)	500 ml	(none)
553066	APC Hamster Anti-Mouse CD3e	0.1 mg	145-2C11

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. The Alexa Fluor®, Pacific Blue™, and Cascade Blue® dye antibody conjugates in this product are sold under license from Molecular Probes, Inc. for research use only, excluding use in combination with microarrays, or as analyte specific reagents. The Alexa Fluor® dyes (except for Alexa Fluor® 430), Pacific Blue™ dye, and Cascade Blue® dye are covered by pending and issued patents.
5. Alexa Fluor® 488 fluorochrome emission is collected at the same instrument settings as for fluorescein isothiocyanate (FITC).
6. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
7. 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.
8. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.

References

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