

Technical Data Sheet

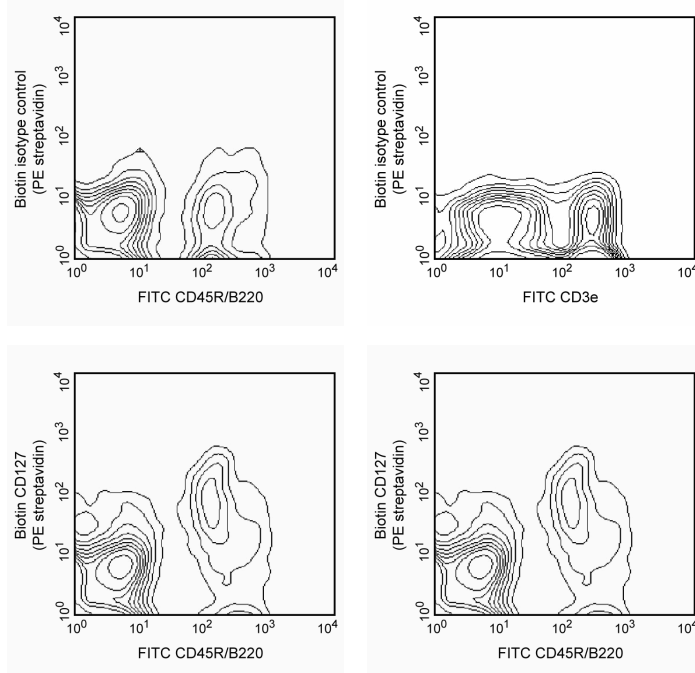
Biotin Rat Anti-Mouse CD127

Product Information

Material Number:	555288
Alternate Name:	IL-7 Receptor α chain
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	B12-1
Immunogen:	Mouse CD127-human IgG fusion protein
Isotype:	Rat (WF) IgG2a, λ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

The B12-1 monoclonal antibody reacts with CD127, the 65-75-kDa type I transmembrane protein IL-7R α . The high affinity IL-7 receptor complex is composed of at least two transmembrane proteins, IL-7R α and CD132, the common γ chain. CD127 has some sequence homology to the cytokine receptor superfamily (also known as the hematopoietin receptor superfamily). Interaction between IL-7 and its receptor is important for the proliferation of pre-B lymphocytes and can also trigger proliferation of CD4-CD8- immature thymocytes, as well as mature T cells in the periphery. Mice lacking CD127 display profoundly impaired development of the B and T lymphoid cell lineages, but display no obvious non-lymphoid abnormalities. IL-7R α is expressed on common lymphoid progenitors and early stages of B lineage development in the bone marrow, on the earliest thymocyte progenitors and CD4-CD8- double-negative and CD4+ and CD8+ singlepositive thymocytes, and on most peripheral T lymphocytes. Intestinal intraepithelial lymphocytes with low-density $\gamma\delta$ TCR upregulate CD127 expression in response to IL-2, which may be secreted by neighboring $\alpha\beta$ TCR-bearing T cells.



Expression of CD127 in the bone marrow and spleen. C57BL/6 bone marrow leukocytes (Left panels) and splenocytes (Right panels) were stained with either biotinylated rat IgG2a, κ isotype control mAb R35-95 (Cat. no. 553928, Top panels) or biotinylated B12-1 antibody (Bottom panels) and either FITC-conjugated RA3-6B2 anti-mouse CD45R/B220, Cat. no. 553087/553088, Left panels) or FITC-conjugated 145-2C11 mAb (anti-mouse CD3e, Cat. no. 553061/553062, Right panels), followed by Streptavidin-PE (Cat. no. 554061, all panels). Flow cytometry was performed on a FACScan (BD Biosciences, San Jose, CA).

Preparation and Storage

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

The antibody was conjugated with biotin under optimum conditions, and unreacted biotin was removed.

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

Application Notes

Application

Flow cytometry	Routinely Tested
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BD Biosciences

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Suggested Companion Products

Catalog Number	Name	Size	Clone
553928	Biotin Rat IgG2a κ Isotype Control	0.25 mg	R35-95
553087	FITC Rat Anti-Mouse CD45R/B220	0.1 mg	RA3-6B2
553088	FITC Rat Anti-Mouse CD45R/B220	0.5 mg	RA3-6B2
553061	FITC Hamster Anti-Mouse CD3e	0.1 mg	145-2C11
553062	FITC Hamster Anti-Mouse CD3e	0.5 mg	145-2C11
554061	PE Streptavidin	0.5 mg	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.
3. 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.

References

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