

Technical Data Sheet

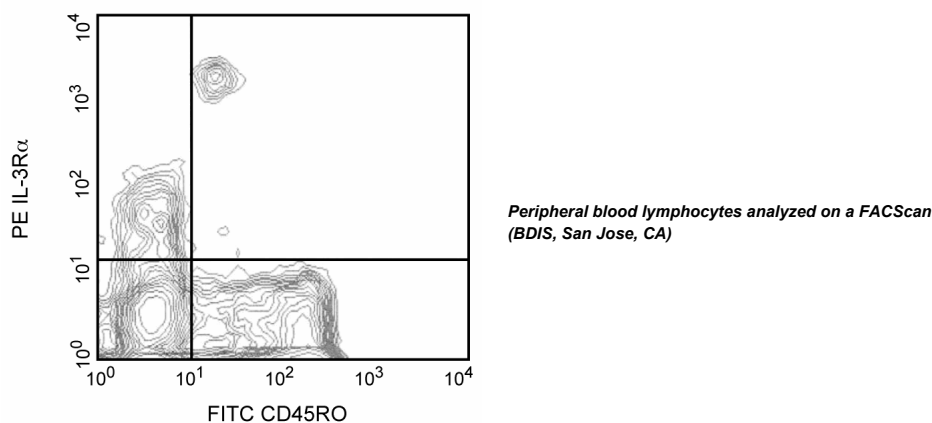
PE Mouse Anti-Human CD123

Product Information

Material Number:	561058
Alternate Name:	IL3RA; IL-3RA; IL-3Fα; IL-3R-alpha; Interleukin-3 receptor subunit alpha
Size:	25 µg
Concentration:	0.2 mg/ml
Clone:	7G3
Immunogen:	Human IL-3Ra-transfected cells
Isotype:	Mouse IgG2a, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 7G3 monoclonal antibody specifically reacts with human CD123, the 70 kD IL-3 receptor α chain (IL-3Rα), which associates with the 120-140 kD β subunit. The β chain is shared with the receptors for interleukins IL-5 and GM-CSF. IL-3Rα is expressed on hematopoietic progenitors and plays an important role in hematopoietic progenitor cell growth and differentiation. This antibody has been reported to block the binding of 125I-IL-3 to high and low affinity IL-3 receptors. In functional experiments, this antibody was found to inhibit acute myeloid leukemia cell proliferation, basophil histamine release, endothelial cell-mediated IL-8 secretion, and neutrophil transmigration. This antibody has been reported to be useful for immunoprecipitation, western blot and immunofluorescent staining for flow cytometry. At the Fifth HLDA Workshop, the human IL-3 receptor was designated CD123.



Preparation and Storage

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

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were 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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Recommended Assay Procedure:

A no azide/low endotoxin version of the 7G3 clone is Cat. No. 554526

Suggested Companion Products

Catalog Number	Name	Size	Clone
554648	PE Mouse IgG2a, κ Isotype Control	0.1 mg	G155-178

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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. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
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.

References

- Kishimoto T, von dem Borne AEG, Goyert SM, et al., ed. *Leucocyte Typing VI: White Cell Differentiation Antigens*. London: Garland Publishing; 1997. (Biology)
- Macardle PJ, Chen Z, Shih CY, et al. Characterization of human leucocytes bearing the IL-3 receptor. *Cell Immunol*. 1996; 168(1):59-68. (Biology)
- Schlossman SF, Boumsell L, Gilks W, et al, ed. *Leukocyte Typing V: White Cell Differentiation Antigens*. New York: Oxford University Press; 1995. (Clone-specific)
- Sun Q, Woodcock JM, Rapoport A, et al. Monoclonal antibody 7G3 recognizes the N-terminal domain of the human interleukin-3 (IL-3) receptor alpha-chain and functions as a specific IL-3 receptor antagonist. *Blood*. 1996; 87(1):83-92. (Immunogen: Blocking, Immunoprecipitation, Neutralization, Western blot)
- Zola H. Detection of cytokine receptors by flow cytometry. In: Coligan JE, Kruisbeek AM, Margulies DH, Shevach EM, Strober W, ed. *Current Protocols in Immunology*. New York: Green Publishing Associates and Wiley-Interscience; 1995:6.21.1-6.21.18. (Clone-specific: Flow cytometry)