

Technical Data Sheet

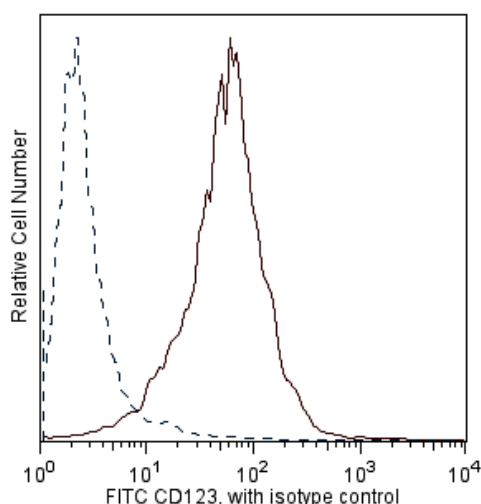
FITC Mouse Anti-Human CD123

Product Information

Material Number:	561694
Alternate Name:	IL3RA; IL-3RA; IL-3Fα; IL-3R-α; Interleukin-3 receptor subunit alpha
Size:	25 tests
Vol. per Test:	20 µl
Clone:	7G3
Immunogen:	Human IL-3Ra-transfected cells
Isotype:	Mouse IgG2a, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing BSA and ≤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.



Flow cytometric analysis of FITC anti-human CD123 (IL3-Rα) on cells transfected with human IL3-Rα cDNA. Cells transfected with human IL3-Rα cDNA were stained with either FITC anti-CD123(clone 7G3, solid line) or a FITC mouse IgG2a isotype control (catalog number 555573, dashed line) and analyzed by flow cytometry. Flow cytometry was performed on a BD FACSCalibur™ System and the histograms were derived from the gated events based on light scattering characteristics of viable cells.

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 FITC under optimum conditions, and unreacted FITC was removed.

Application Notes

Application

Flow cytometry	Routinely Tested
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Suggested Companion Products

Catalog Number	Name	Size	Clone
555573	FITC Mouse IgG2a, κ Isotype Control	100 tests	G155-178
554656	Stain Buffer (FBS)	500 ml	(none)

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Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1×10^6 cells in a 100- μ l experimental sample (a test).
2. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
4. Please refer to www.bdbiosciences.com/pharming/en/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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
7. An isotype control should be used at the same concentration as the antibody of interest.

References

Macardie PJ, Chen Z, Shih CY, et al. Characterization of human leucocytes bearing the IL-3 receptor. *Cell Immunol.* 1996; 168(1):59-68. (Biology)
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)

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