

**Anti-Human CD123 (IL-3R α)
Antibody, Clone 6H6, Biotin**



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Antibodies

Mouse monoclonal IgG1 antibody
against human, rhesus, sooty
mangabey CD123 (IL-3R α), biotin-
conjugated

Catalog #60110BT
#60110BT.1

100 μ g 0.5 mg/mL
25 μ g 0.5 mg/mL

FOR RESEARCH USE ONLY. NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES.

Product Description

The 6H6 antibody reacts with human CD123 (IL-3 receptor subunit α), an ~70 kDa type I transmembrane glycoprotein belonging to the type I cytokine receptor family (type 5 subfamily) and the Ig superfamily. CD123 constitutes the ligand-binding α chain of the heterodimeric IL-3 receptor. CD123 binds IL-3 with low affinity per se, but when associated with CD131, the signal-transducing β chain of the receptor, high affinity binding of IL-3 is observed. CD123 is expressed by hematopoietic progenitor cells, endothelial cells, basophils, eosinophils, mast cells, monocytes, macrophages, dendritic cells, megakaryocytes, a subset of B cells, and by neutrophils if cultured in the presence of GM-CSF. IL-3 binding to CD123 stimulates proliferation, differentiation and viability of hematopoietic cells. CD123 is highly expressed in malignancies such as acute leukemia. The 6H6 antibody does not inhibit binding of IL-3 to either CD123 or the IL-3 receptor.

Target Antigen Name:	CD123 (IL-3R α)
Alternative Names:	hIL-3Ra, IL3R, IL-3Ra, IL 3 receptor alpha SP2 isoform, IL3RAX, IL3RAY, IL3RX, IL3RY, Interleukin-3 Receptor alpha, MGC34174
Gene ID:	3563
Species Reactivity:	Human, Rhesus, Sooty Mangabey
Host Species:	Mouse (BALB/c)
Clonality:	Monoclonal
Clone:	6H6
Isotype:	IgG1, kappa
Immunogen:	COS cells transfected with a cDNA encoding the human IL-3R α chain
Conjugate:	Biotin

Applications

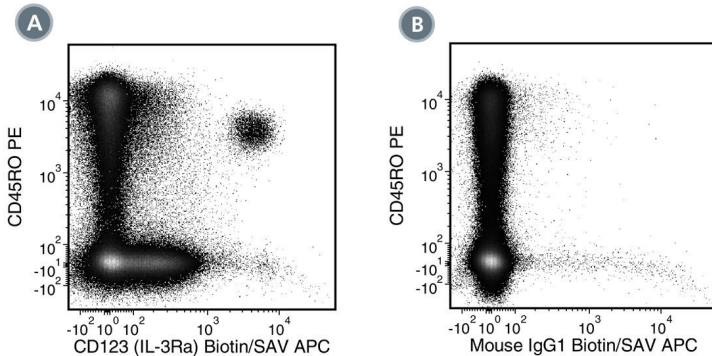
Verified:	FC
Reported:	FC, ICC, IF, IHC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Human Plasmacytoid DC Enrichment Kit (Catalog #19062) and EasySep™ Human Basophil Enrichment Kit (Catalog #19069).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; WB: Western blotting

Properties

Formulation:	Aqueous buffer containing 0.09% sodium azide, may contain carrier protein/stabilizer
Purification:	The antibody was purified by column chromatography.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, please contact techsupport@stemcell.com .
Directions for Use:	For flow cytometry the suggested use of this antibody is $\leq 0.25 \mu$ g per 1×10^6 cells in 100 μ L volume. It is recommended that the antibody be titrated for optimal performance for each application.

Data



(A) Flow cytometry analysis of human peripheral blood mononuclear cells (PBMCs; gated on lymphocytes) labeled with Anti-Human CD123 (IL-3R α) Antibody, Clone 6H6, Biotin followed by streptavidin (SAV) APC and Anti-Human CD45RO Antibody, Clone UCHL1, PE (Catalog #60097PE).

(B) Flow cytometry analysis of human PBMCs (gated on lymphocytes) labeled with Mouse IgG1, kappa Isotype Control Antibody, Clone MOPC-21, Biotin (Catalog #60071BT) followed by SAV APC and Anti-Human CD45RO Antibody, Clone UCHL1, PE (Catalog #60097PE).

Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

1. Breton G et al. (2015) Circulating precursors of human CD1c+ and CD141+ dendritic cells. *J Exp Med* 212(3): 401–13. (FC)
2. Lee J et al. (2015) Restricted dendritic cell and monocyte progenitors in human cord blood and bone marrow. *J Exp Med* 212(3): 385–99. (FACS, FC)
3. Greer AM et al. (2014) Accumulation of BDCA1+ dendritic cells in interstitial fibrotic lung diseases and Th2-high asthma. *PLoS One* 9(6): e99084. (FC)
4. Kivisäkk P et al. (2014) Effect of natalizumab treatment on circulating plasmacytoid dendritic cells: A cross-sectional observational study in patients with multiple sclerosis. *PLoS One* 9(7): e103716. (FC)
5. Royle CM et al. (2014) HIV-1 and HIV-2 differentially mature plasmacytoid dendritic cells into IFN-producing cells or APCs. *J Immunol* 193(7): 3538–48. (FC)
6. Hwang K et al. (2013) Immunohistochemical analysis of CD123, CD56 and CD4 for the diagnosis of minimal bone marrow involvement by blastic plasmacytoid dendritic cell neoplasm. *Histopathology* 62(5): 764–70. (IHC)
7. Manuel SL et al. (2013) An altered maturation and adhesion phenotype of dendritic cells in diseased individuals compared to asymptomatic carriers of human T cell leukemia virus type 1. *AIDS Res Hum Retroviruses* 29(9): 1273–85. (FC)
8. Chen SC et al. (2010) Expression of chemokine receptor CXCR3 by lymphocytes and plasmacytoid dendritic cells in human psoriatic lesions. *Arch Dermatol Res* 302(2): 113–23. (IHC)
9. Martín-Gayo E et al. (2010) Plasmacytoid dendritic cells resident in human thymus drive natural Treg cell development. *Blood* 115(26): 5366–75. (FC, IF, IHC)
10. Xu W et al. (2007) Epithelial cells trigger frontline immunoglobulin class switching through a pathway regulated by the inhibitor SLPI. *Nat Immunol* 8(3): 294–303. (ICC, IF, IHC)
11. Jaye DL et al. (2006) Expression of the plasmacytoid dendritic cell marker BDCA-2 supports a spectrum of maturation among CD4+ CD56+ hematodermic neoplasms. *Mod Pathol* 19(12): 1555–62. (IHC)
12. Herling M et al. (2003) TCL1 expression in plasmacytoid dendritic cells (DC2s) and the related CD4+ CD56+ blastic tumors of skin. *Blood* 101(12): 5007–09. (IHC)
13. Rapoport AP et al. (1996) Mutational analysis of the alpha subunit of the human interleukin-3 receptor. *Blood* 87(1): 112–22. (FC, ICC, IF)
14. Sun Q et al. (1996) Monoclonal antibody 7G3 recognizes the N-terminal domain of the human interleukin-3 (IL-3) receptor α -chain and functions as a specific IL-3 receptor antagonist. *Blood* 87(1): 83–92. (FA, IP, WB)

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