Antibodies

Anti-Human CD123 (IL-3Rα) Antibody, Clone 6H6, PerCP-Cy5.5

Mouse monoclonal IgG1 antibody against human, rhesus, sooty mangabey CD123 (IL-3Rα), PerCP-Cy5.5-conjugated

Catalog	#60110PS	100 Tests	5 µL/test
	#60110PS.1	25 Tests	5 µL/test

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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-3Rα)
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-3Rα chain
Conjugate:	PerCP-Cy5.5

Applications

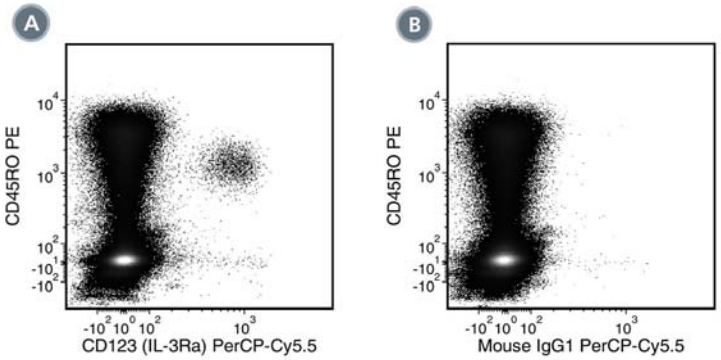
Verified:	FC
Reported:	FC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Human Plasmacytoid DC Enrichment Kit (Catalog #19062) and EasySep™ Human Basophil Enrichment Kit (Catalog #19069).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; 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. Protect product from prolonged exposure to light. For product expiry date, please contact techsupport@stemcell.com.
Directions for Use:	For flow cytometry the suggested use of this antibody is ≤ 5 µL (0.25 µg) per 1 x 10^6 cells in 100 µL 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-3Rα) Antibody, Clone 6H6, PerCP-Cy5.5 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, PerCP-Cy5.5 (Catalog #60070PS) and Anti-Human CD45RO Antibody, Clone UCHL1, PE.

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)