

Rabbit anti-Human CD123 Antibody | anti-CD123 antibody

Anti-CD123 [7G3], Rabbit IgG

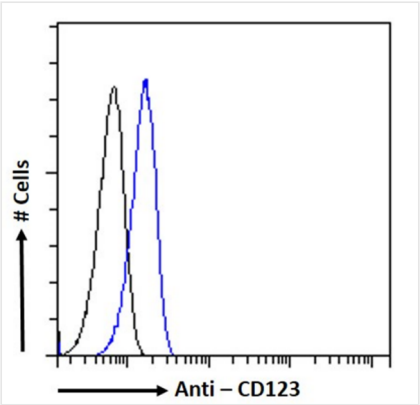
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA72281	Rabbit	Human	Flow Cytometry, Functional Assay, Western Blot, Immunoprecipitation, Flow Cytometry, Functional Assay

PRODUCT SYNONYMS

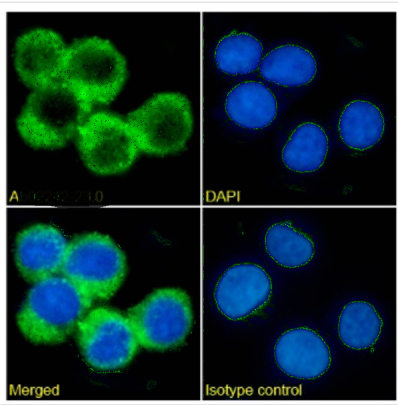
CD123; Anti-CD123 [7G3]; Rabbit IgG; IL3RA; IL-3RA; IL-3R-alpha; Interleukin-3 receptor subunit alpha; IL-3 receptor subunit alpha; IL-3R subunit alpha; anti-CD123 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Isotype	Rabbit IgG, Kappa
Clone Number	7G3
Specificity	This antibody specifically binds to the IL-3R alpha-chain and completely abolishes its function. IL-3R is expressed on myeloid, lymphoid, and vascular endothelial cells, where it transduces IL-3-dependent signals leading to cell activation.
Purity/Purification	Protein A affinity purified
Form/Format	PBS with 0.02% Proclin 300.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-CD123 antibody	Blocking, FCM/FACS (Flow Cytometry), WB (Western Blot), IP (Immunoprecipitation), FCM/FACS (Flow Cytometry)
Immunogen	The original antibody was generated by intraperitoneally immunizing BALB/c mice with 5 X 10 ⁶ COS cells transfected with the IL-3R a-chain in combination with adjuvant peptides.
Chimeric Use Statement	This chimeric rabbit antibody was made using the variable domain sequences of the original Mouse IgG2a format, for improved compatibility with existing reagents, assays and techniques.
Preparation and Storage	Store at 4 degree C for up to 3 months. For longer storage, aliquot and store at -20 degree C.



FCM/FACS (Flow Cytometry)
Flow cytometry using the Anti-CD123 antibody 7G3 (AAA72281). Paraformaldehyde fixed U937 cells permeabilized with 0.5% Triton were stained with anti-unknown specificity antibody or the rabbit IgG version of 7G3 (AAA72281-23.0, blue line) at a dilution of 1:100 for 1h at RT. After washing, the bound antibody was detected using a goat anti-rabbit IgG AlexaFluor 488 antibody at a dilution of 1:1000 and cells analyzed using a FACSCanto flow-cytometer.



IF (Immunofluorescence)
Immunofluorescence staining of U937 cells with anti-CD123 (AAA72281) 7G3. Immunofluorescence analysis of paraformaldehyde fixed U937 cells on Shi-fix coverslips stained with the chimeric rabbit IgG version of 7G3 (AAA72281-23.0) at 10 ug/ml for 1h followed by Alexa Fluor 488 secondary antibody (2 ug/ml), showing membrane staining. The nuclear stain is DAPI (blue). Panels show from left-right, top-bottom AAA72281-23.0, DAPI, merged channels and an isotype control. The isotype control was an unknown specificity antibody followed by staining with Alexa Fluor 488 secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-CD123 antibody	This antagonist antibody binds IL-3Ralpha and blocks IL-3 binding and IL-3-mediated functions. mAb 7G3 immunoprecipitated and recognized in western blots the IL-3R alpha chain expressed by transfected cells and bound to primary cells expressing IL-3Ralpha. The expression of IL-3Ralpha chain on various cells types was analysed by flow cytometry using this antibody (PMID: 8547680). It is reported that 7G3 inhibits IL-3Ralpha and betac dimerization (PMID: 8649415). This antibody was used in the study of neutrophils expressing IL-3 receptors which are activated by granulocyte-macrophage colony-stimulating factor or GM-CSF (PMID: 7579364). The original 7G3, mouse IgG2a antibody inhibited IL-3-mediated intracellular signaling of isolated acute myeloid leukemia (AML) CD34+ CD38- cells in vitro and reduced their survival (PMID: 19570512). Humanized version of this antibody CSL362 is available on request. CSL362, retains the ability to neutralise IL-3 and has enhanced affinity for the FcgammaRIIIa (CD16) on NK cells. In vitro studies have demonstrated that the increased affinity for CD16 correlates with greater antibody-dependent cell-mediated cytotoxicity (ADCC) against CD123 expressing cell lines (Busfield et al., 2012). CSL362 is being accessed for use in the treatment of myeloid leukemia (PMID: 24363400, 2524888, 26130514).
Product Categories/Family for anti-CD123 antibody	Cell signalling; cell activation; cancer; oncology
References	Sun 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. PMID:8547680

NCBI AND UNIPROT INFORMATION

NCBI GI #	417184
NCBI GeneID	3563
UniProt Accession #	P26951; Q5HYQ7; Q5HYQ8; Q9UEH7; A8K3F3; B9VI81
Molecular Weight	34,466 Da
NCBI Official Full Name	Interleukin-3 receptor subunit alpha
NCBI Official Synonym Full Names	interleukin 3 receptor, alpha (low affinity)
NCBI Official Symbol	IL3RA
NCBI Official Synonym Symbols	IL3R; CD123; IL3RX; IL3RY; IL3RAY; hIL-3Ra

NCBI Protein Information	interleukin-3 receptor subunit alpha; IL-3RA; IL-3R-alpha; CD123 antigen; IL-3R subunit alpha; IL-3 receptor subunit alpha; IL-3 receptor alpha SP2 isoform
UniProt Protein Name	Interleukin-3 receptor subunit alpha
UniProt Gene Name	IL3RA
UniProt Synonym Gene Names	IL3R; IL-3 receptor subunit alpha; IL-3R subunit alpha; IL-3R-alpha; IL-3RA
UniProt Entry Name	IL3RA_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/rabbit-human-antibody/cd123/72281>