abcam

ab95782

FITC Anti-IL3RA/CD123 antibody [6H6]

Anti-IL3RA/CD123 antibody [6H6] conjugated to FITC - suitable for flow cytometry, and reacts with human samples. Clone [6H6] is a mouse monoclonal antibody and one of the most commonly used clones for flow cytometry.

Design your panel with our interactive flow cytometry panel builder. Click here.

Key facts

Isotype	IgG1
Host species	Mouse
Conjugation	FITC
Excitation/Emission	Ex: 495nm, Em: 519nm
Storage buffer	pH: 7.2 Preservative: 0.09% Sodium azide Constituents: Gelatin, BSA, PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing IL3RA protein. The exact immunogen used to generate this antibody is proprietary information. Database link P26951
Clone number	6H6
Purification technique	Affinity purification Protein G
Light chain type	kappa

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	5 µL for 10^6 Cells
Notes	ab106163 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Target data

See full target information IL3RA

Function	Cell surface receptor for IL3 expressed on hematopoietic progenitor cells, monocytes and B-lymphocytes that controls the production and differentiation of hematopoietic progenitor cells into lineage-restricted cells (PubMed:10527461). Ligand stimulation rapidly induces hetrodimerization with IL3RB, phosphorylation and enzyme activity of effector proteins such as JAK2 and PI3K that play a role in signaling cell proliferation and differentiation. Activation of JAK2 leads to STAT5-mediated transcriptional program (By similarity).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	IL3RA also known as CD123 or interleukin-3 receptor alpha chain is a transmembrane protein with a molecular weight of approximately 70-80 kDa. This protein frequently expresses on the surface of hematopoietic cells particularly those of myeloid lineage including mast cells and basophils. Researchers use CD123 as a marker for identifying certain cell types in flow cytometry. Antibodies such as anti-CD123 are available for various applications including identifying these cells in research and clinical settings.
Biological function summary	IL3RA forms part of a heterodimeric receptor complex binding with the beta-common (βc) chain to create the high-affinity IL-3 receptor. This complex plays a role in mediating the effects of interleukin-3 a cytokine that promotes the growth and differentiation of pluripotent hematopoietic stem cells. Through this mechanism the receptor influences immune response modulation particularly in allergic reactions and inflammation.

Pathways	IL3RA interacts with the JAK/STAT pathway which is essential for signal transduction and transcription activation in response to IL-3 binding. This pathway involves proteins like Janus kinase 2 (JAK2) and Signal Transducer and Activator of Transcription 5 (STAT5) which transmit signals from IL3RA engagement to the cell nucleus promoting gene expression associated with cell proliferation and survival.
Associated diseases and disorders	IL3RA expression relates closely to certain hematological conditions such as acute myeloid leukemia (AML) and systemic mastocytosis. In AML increased expression of CD123 marks leukemic cells making it a target for therapeutic intervention. The interaction of IL3RA with FLT3 another tyrosine kinase is of particular interest in these disorders as both proteins contribute to the proliferation of malignant cells through related signaling pathways.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

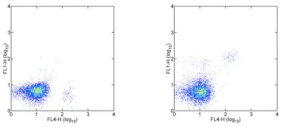
We do not recommend this combination. It is not covered by our product promise.

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1 product image



Flow Cytometry - FITC Anti-IL3RA/CD123 antibody [6H6] (ab95782)

IL3RA/CD123 Flow Cytometry staining using mouse Anti-IL3RA/CD123 antibody

Staining of normal Human peripheral blood cells with anti-Human CD85g (ILT7) Alexa Fluor® 647 and 0.25 µg of Mouse IgG1k Isotype Control FITC (left) or ab95782 (right). Cells in the monocyte gate were used for analysis.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.