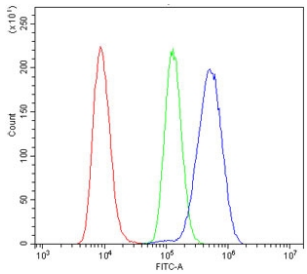
IL3RA Antibody / CD123 Antibody (RQ5983)

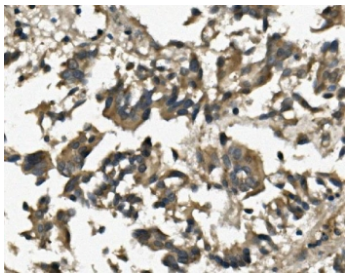
Catalog No.	Formulation	Size
RQ5983	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

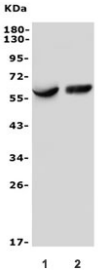
Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	P26951
Localization	Cell surface, cytoplasmic
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry: 1-2ug/ml Flow cytometry: 1-3ug/million cells Direct ELISA: 0.1-0.5ug/ml
Limitations	This IL3RA Antibody / CD123 Antibody is available for research use only.



IL3RA Antibody in Human Raji B Lymphoma Cells FACS. Flow cytometry analysis of human Raji B lymphocytes using IL3RA Antibody at 1 ug/million cells demonstrates a clear rightward fluorescence shift of the antibody-stained population (blue) relative to the isotype control (green) and unstained cells (red). Cells were blocked with goat serum before staining. The well-separated positive population demonstrates cell-surface detection of IL3RA by this CD123 Antibody in Raji cells.



IL3RA Antibody in Human Rectal Cancer IHC. Immunohistochemistry of FFPE human rectal cancer tissue using IL3RA Antibody demonstrates prominent brown staining across tumor-cell populations, with membranous and cytoplasmic signal visible throughout the field. HIER was performed by boiling tissue sections in pH 8 EDTA for 20 min followed by cooling before testing. The robust cellular staining demonstrates detection of IL3RA by this CD123 Antibody in human rectal cancer.



IL3RA Antibody Detects CD123 in Raji and K562 Cells WB. Western blot analysis of human Raji (lane 1) and K562 (lane 2) cell lysates using IL3RA Antibody demonstrates a strong, discrete band at approximately 55-60 kDa in both samples, with minimal additional background. This migration falls within the expected 43-70 kDa range reported for CD123 depending on glycosylation level. The consistent signal across both human hematopoietic cell lines demonstrates detection of IL3RA by this CD123 Antibody under Western blot conditions.

Description

IL3RA Antibody recognizes interleukin 3 receptor alpha, the cell-surface glycoprotein also known as CD123. Encoded by the IL3RA gene, CD123 is the ligand-binding alpha subunit of the interleukin 3 receptor and contributes to regulation of hematopoietic cell survival, proliferation, and differentiation. IL3RA expression among hematopoietic progenitors and multiple immune-cell populations reflects the importance of IL-3 responsiveness in blood-cell development and immune regulation.

CD123 binds IL-3 with relatively low affinity when expressed independently. Association with the common beta subunit CSF2RB (CD131) produces the functional high-affinity IL-3 receptor complex. CSF2RB is also shared by the receptor systems for GM-CSF and IL-5. Formation of the IL-3 receptor complex activates intracellular pathways including JAK-STAT, PI3K-AKT, and MAPKs, connecting cytokine recognition with cellular survival, proliferation, and differentiation.

IL3RA is expressed by several hematopoietic and immune-cell populations and is widely studied in the context of normal and malignant hematopoiesis. Elevated or altered CD123 expression has been investigated in acute myeloid leukemia and other hematologic malignancies, where the receptor can characterize particular neoplastic cell populations. Its extracellular localization and involvement in cytokine responsiveness have also made CD123 an important target for research into therapeutic strategies directed toward hematologic malignancies.

This rabbit polyclonal antibody was generated against recombinant human IL3RA protein. As a CD123 Antibody, it provides a reagent for investigating the alpha subunit of the IL-3 receptor and its relationship to hematopoietic development, cytokine responsiveness, and immune-cell biology. NSJ Bioreagents supplies this antibody for research use only. (nsjbio.com)

An IL3RA Antibody can be used to investigate CD123 expression and molecular mechanisms connecting IL-3 receptor signaling, hematopoietic cell development, immune regulation, and hematologic disease.

For a mouse monoclonal clone with broader IHC validation and exceptionally strong protein microarray target separation, see our CD123 Antibody IL3RA/1531 / IL3RA Monoclonal Antibody page.

Application Notes

Optimal dilution of the IL3RA Antibody / CD123 Antibody should be determined by the researcher.

Immunogen

Recombinant human protein (amino acids T111-T378) was used as the immunogen for the IL3RA Antibody.

Storage

After reconstitution, the IL3RA Antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

CD123 antibody, IL3RA antibody, IL-3RA antibody, IL3R alpha antibody, IL-3R alpha antibody, interleukin 3 receptor alpha antibody, interleukin-3 receptor alpha antibody, interleukin 3 receptor alpha chain antibody, IL-3 receptor alpha chain antibody

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