



Mouse Anti-Human IL-3R alpha/CD123 monoclonal antibody, clone NN12 (CABT-ZB814)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Specificity	It reacts with Human IL-3R alpha/CD123
Target	IL3RA
Immunogen	Recombinant Human IL3RA/CD123 Protein
Isotype	IgG
Source/Host	Mouse
Species Reactivity	Human
Clone	NN12
Purification	Protein A purified
Conjugate	Unconjugated
Applications	ELISA(cap) We recommend the following for sandwich ELISA (Capture - Detection): CABT-ZB814 - CABT-ZB1105 This antibody will detect IL-3R alpha/CD123 in antibody pair set. [ABPR-ZB395]
Preparation	This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, recombinant Human IL3RA / CD123. The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography.
Format	Purified, Liquid

Concentration	Lot specific
Size	50 µL, 100 µL, 200 µL, 1 mL
Buffer	PBS
Preservative	None
Storage	This antibody can be stored at 2°C-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°C to -80°C. Preservative-Free. Avoid repeated freeze-thaw cycles.
Ship	Wet ice

BACKGROUND

Introduction

Interleukin-3 receptor subunit alpha, also known as IL-3 receptor subunit alpha, IL-3R-alpha, CD123, and IL3RA, is a single-pass type I membrane protein that belongs to the type I cytokine receptor family and Type 5 subfamily. The specific alpha subunit of the interleukin-3 receptor (IL-3Ralpha, CD123) is strongly expressed in various leukemic blasts and leukemic stem cells and seems to be an excellent target for the therapy of leukemias. The WSXWS motif of IL3RA appears to be necessary for proper protein folding and thereby efficient intracellular transport and cell-surface receptor binding. The box one motif of IL3RA is required for JAK interaction and/or activation. IL3RA represents a unique marker for primitive leukemic stem cells. Targeting of IL3RA may be a promising strategy for the preferential ablation of AML cells. Aberrant IL3RA expression is a good marker for monitoring of minimal residual disease. IL3RA is strongly expressed in various leukemic blasts and leukemic stem cells and seems to be an excellent target for the therapy of leukemias. Recent studies have shown that interleukin-3 receptor alpha (CD123) is highly expressed on leukemia stem cells of patients with acute myeloid leukemia, and is correlated with tumor load and poor prognosis. CD123 was highly expressed in the bone marrow of the patients with myelodysplastic syndrome (MDS), significantly correlated with the proportion of bone marrow blasts, and thus might be the marker of MDS malignant clone. IL3RA is also a useful new marker for distinguishing B-cell disorders with circulating villous lymphocytes as its expression is characteristic of typical hairy cell leukemia (HCL) with high sensitivity and specificity.

Keywords	IL3RA; Interleukin 3 receptor subunit alpha; IL3R; CD123
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GENE INFORMATION

Synonyms

IL3RA; Interleukin 3 receptor subunit alpha; IL3R; CD123; IL3RX; IL3RY; IL3RAY; hIL-3Ra; 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; CSL360; 7G3; TLA

Entrez Gene ID [3565](#)

UniProt ID [P05112](#)
