

# Recombinant Human IL3RA/CD123 Protein (His Tag)

Catalog Number:PKSH031551



**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

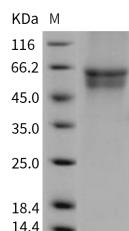
## Description

<b>Synonyms</b>	CD123;hIL-3Ra;IL3R;IL3RAY;IL3RX;IL3RY
<b>Species</b>	Human
<b>Expression Host</b>	HEK293 Cells
<b>Sequence</b>	Met 1-Arg 305
<b>Accession</b>	NP_002174.1
<b>Calculated Molecular Weight</b>	34.5 kDa
<b>Observed molecular weight</b>	50-60 kDa
<b>Tag</b>	C-His
<b>Bioactivity</b>	Immobilized human IL3 at 20 µg/ml (100 µl/well) can bind biotinylated human IL3RA with a linear ranger of 0.32-1.6 µg/ml.

## Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

## Data



> 95 % as determined by reducing SDS-PAGE.

## Background

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 which belongs to the type I cytokine receptor family and Type 5 subfamily. 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

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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.

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