

# Recombinant Human IL3RA Protein (Met1-Arg305), HlgG1 Fc-tagged

**Cat. No.** IL3RA-1120H    **Lot. No.** (See product label)

## SPECIFICATION

**Product Overview**      Recombinant Human IL3RA Protein (NP\_002174.1) (Met1-Arg305) was produced by HEK293 Cells expression system. This protein was expressed with the Fc region of human IgG1 at the C-terminus.

**Species**      Human


**Source**      HEK293

**ProteinLength**      Met1-Arg305

**Description**      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 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

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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.

<b>Predicted N Terminal</b>	Thr 19
<b>Form</b>	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
<b>Molecular Mass</b>	The recombinant human IL3RA consists of 525 amino acids and predicts a molecular mass of 59.8 kDa.
<b>Endotoxin</b>	< 1.0 EU per µg protein as determined by the LAL method.
<b>Purity</b>	> 95 % as determined by SDS-PAGE.
<b>Stability</b>	Samples are stable for up to twelve months from date of receipt at -70 centigrade.
<b>Storage</b>	Store it under sterile conditions at -20 centigrade to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
<b>Reconstitution</b>	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 mg/ml. Centrifuge the vial at 4°C before opening to recover the entire contents.

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**Shipping**

In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature.

Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

**GENE INFORMATION**

<b>Gene Name</b>	IL3RA interleukin 3 receptor, alpha (low affinity) [ Homo sapiens ]
<b>Official Symbol</b>	IL3RA
<b>Synonyms</b>	IL3RA; CD123; IL-3RA; IL-3R-alpha; CD123 antigen; IL3R; IL3RX; IL3RY; IL3RAY; hIL-3Ra; MGC34174;
<b>Gene ID</b>	3563
<b>mRNA Refseq</b>	NM_002183
<b>Protein Refseq</b>	NP_002174
<b>MIM</b>	308385
<b>UniProt ID</b>	P26951

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