

## IL-3R alpha/CD123 Protein, Human (Biotinylated, HEK293, His-Avi)

<b>Cat. No.:</b>	HY-P700747
<b>Synonyms:</b>	CD123; IL-3R subunit alpha; IL3R; IL3RA; IL-3Ra; IL3RAY; IL3RX; IL3RY; MGC34174; IL-3 R alpha
<b>Species:</b>	Human
<b>Source:</b>	HEK293
<b>Accession:</b>	P26951-1 (T19-R305)
<b>Gene ID:</b>	3563
<b>Molecular Weight:</b>	55-65 kDa

### PROPERTIES

<b>Biological Activity</b>	Immobilized Anti-IL-3 R alpha Antibody, hFc Tag at 0.5µg/ml (100µl/well) on the plate. Dose response curve for Biotinylated Human IL-3 R alpha, His Tag with the EC <sub>50</sub> of 9.9ng/ml determined by ELISA.
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4. Normally 8% trehalose is added as protectant before lyophilization.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	IL-3R alpha/CD123 Protein serves as a cell surface receptor for IL3 and is expressed on hematopoietic progenitor cells, monocytes, and B-lymphocytes, exerting control over the production and differentiation of hematopoietic progenitor cells into lineage-restricted cells. Upon ligand stimulation, it rapidly undergoes heterodimerization with IL3RB, leading to the phosphorylation and activation of effector proteins, including JAK2 and PI3K. These activated pathways play a crucial role in signaling cell proliferation and differentiation. JAK2 activation further initiates a STAT5-mediated transcriptional program, contributing to the regulation of cellular functions. The receptor interacts with its ligand, IL3, and forms a heterodimer consisting of an alpha and a beta subunit. Notably, the beta subunit is shared among the receptors for IL3, IL5, and GM-CSF.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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