

## IL-3R alpha/CD123 Protein, Mouse (HEK293, Fc)

Cat. No.:	HY-P75862
Synonyms:	Interleukin-3 receptor subunit alpha; IL-3R-alpha; IL-3RA; CD123; Sut-1
Species:	Mouse
Source:	HEK293
Accession:	P26952 (M1-K331)
Gene ID:	16188
Molecular Weight:	Approximately 61.5 kDa

### PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.
Storage & Stability	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.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

Background	<p>The IL-3R alpha/CD123 protein functions as a cell surface receptor for IL3 and is expressed on hematopoietic progenitor cells, monocytes, and B-lymphocytes, governing the production and differentiation of hematopoietic progenitor cells into lineage-restricted cells. Upon ligand stimulation, IL-3R alpha rapidly undergoes heterodimerization with IL3RB, leading to the phosphorylation and activation of effector proteins such as JAK2 and PI3K. These activated proteins play a crucial role in signaling cell proliferation and differentiation. The activation of JAK2, in particular, initiates a STAT5-mediated transcriptional program. IL-3R alpha interacts with IL3 and forms a heterodimer with an alpha and a beta subunit, with the beta subunit being common to the IL3, IL5, and GM-CSF receptors. These interactions highlight the intricate molecular mechanisms through which IL-3R alpha regulates signaling pathways, contributing to the modulation of hematopoietic cell development and function.</p>
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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