Proteins



Product Data Sheet

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

Cat. No.: HY-P70468

Synonyms: Interleukin-3 receptor subunit alpha; IL-3 receptor subunit alpha; IL-3R-subunit alpha; IL-3R-

alpha; IL-3RA; CD123

Human Species: Source: **HEK293**

Accession: P26951 (T19-R305)

Gene ID: 3563

Molecular Weight: 40-60 kDa

PROPERTIES

AA S	equ	ien	ce
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TKEDPNPPIT NLRMKAKAQQ LTWDLNRNVT DIECVKDADY SMPAVNNSYC QFGAISLCEV TNYTVRVANP PFSTWILFPE NSGKPWAGAE NLTCWIHDVD FLSCSWAVGP GAPADVQYDL YECLHYKTDA YLNVANRRQQ QGTRIGCRFD DISRLSSGSQ SSHILVRGRS AAFGIPCTDK FVVFSQIEIL TPPNMTAKCN KTHSFMHWKM RSHFNRKFRY ELQIQKRMQP VITEQVRDRT SFQLLNPGTY TVQIRARERV YEFLSAWSTP QRFECDQEEG

ANTRAWR

Appearance

Lyophilized powder.

Formulation

Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.

Endotoxin Level

<1 EU/µg, determined by LAL method.

Reconsititution

It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH₂O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).

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

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.

Caution: Product has not been fully validated for medical applications. For research use only.

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