

## Product Data Sheet

### Animal-Free IL-5 Protein, Human (His)

Cat. No.:	HY-P700131AF
Synonyms:	Interleukin-5; B-cell differentiation factor I; EosinophIL differentiation factor; T-cell replacing factor; TRF; IL5
Species:	Human
Source:	E. coli
Accession:	P05113 (I20-S134)
Gene ID:	3567
Molecular Weight:	Approximately 14.09 kDa

PROPERTIES	
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AA Sequence	MIPTEIPTSA LVKETLALLS THRTLLIANE TLRIPVPVHK NHQLCTEEIF QGIGTLESQT VQGGTVERLF KNLSLIKKYI DGQKKKCGEE RRRVNQFLDY LQEFLGVMNT EWIIES
<b>Biological Activity</b>	Measure by its ability to induce TF-1 cells proliferation. The ED <sub>50</sub> for this effect is <0.3 ng/mL.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a solution containing 1X PBS, pH 8.0.
Endotoxin Level	<0.1 EU per 1 $\mu g$ of the protein by the LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu\text{g}/\text{mL}$ in ddH_2O.
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

# BackgroundIL-5 Protein is a homodimeric cytokine predominantly expressed by T-lymphocytes and NK cells, and it plays a crucial role in<br/>the survival, differentiation, and chemotaxis of eosinophils. Additionally, IL-5 Protein acts on both activated and resting B-<br/>cells, inducing immunoglobulin production, growth, and differentiation. Its biological effects are mediated through a<br/>receptor composed of IL5RA subunit and the cytokine receptor common subunit beta/CSF2RB, leading to the activation of<br/>various kinases such as LYN, SYK, and JAK2. These activated kinases propagate signals through the RAS-MAPK and JAK-<br/>STAT5 pathways. IL-5 Protein exists as a disulfide-linked homodimer and interacts with IL5RA and CSF2RB subunits.

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

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