

# Human IL5 / Interleukin 5 Protein

Catalog Number: 15673-HNCE



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

EDF; IL-5; Interleukin 5; TRF

### Protein Construction:

A DNA sequence encoding the human IL5 (P05113) (Ile20-Ser134) was expressed.

**Source:** Human

**Expression Host:** E. coli

## QC Testing

**Purity:** > 95 % as determined by SDS-PAGE

### Bio Activity:

Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The  $ED_{50}$  for this effect is typically 0.1-0.5 ng/mL.

### Endotoxin:

Please contact us for more information.

**Predicted N terminal:** Ile 20

### Molecular Mass:

The recombinant human IL5 consists of 115 amino acids and predicts a molecular mass of 13.1 KDa.

### Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Stability & Storage:

Samples are stable for twelve months from date of receipt at -20°C to -80°C.

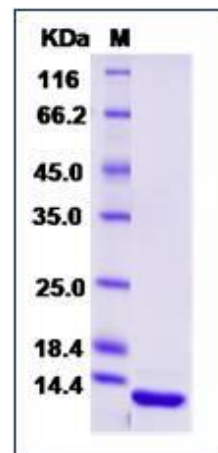
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Interleukin 5 (IL-5) is a member of the interleukin family with a length of 115 amino acids. Interleukins are a group of cytokines (secreted proteins/signaling molecules) that were first seen to be expressed by white blood cells (leukocytes) and has been found in a wide variety of body cells. Interleukin 5 or IL-5 is produced by T helper-2 cells and mast cells. It helps to stimulate B cell growth and increase immunoglobulin secretion and is considered a key mediator in eosinophil activation. Interleukin 5 (IL-5) has long been associated with several allergic diseases, including allergic rhinitis and asthma. Growth in the number of circulating, airway tissue, and induced sputum eosinophils have been observed in patients with these diseases. IL-5 also had something with the terminally differentiated granulocyte eosinophils. IL-5 was originally found as an eosinophil colony-stimulating factor. It has been proved to be a major regulator of eosinophil accumulation in tissues and can modulate eosinophil behavior at every stage from maturation to survival.

## References

1. Milburn MV, *et al.* (1993) A novel dimer configuration revealed by the crystal structure at 2.4 Å resolution of human interleukin-5. *Nature*. 363(6425): 172-176.
2. Lee JS, *et al.* (1989) The IL-4 and IL-5 genes are closely linked and are part of a cytokine gene cluster on mouse chromosome 11. *Somat Cell Mol Genet.* 15(2): 143-152.
3. Woodcock JM, *et al.* (1994) Three residues in the common beta chain of the human GM-CSF, IL-3 and IL-5 receptors are essential for GM-CSF and IL-5 but not IL-3 high affinity binding and interact with Glu21 of GM-CSF. *EMBO J.* 13 (21): 5176-85.

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