

## Active Recombinant Human IL3 Protein, His-tagged

Cat. No. IL3-11105H    Lot. No. (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                          |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Human IL-3 Protein, His Tag is expressed from human 293 cells (HEK293). It contains AA Ala 20 - Phe 152 (Accession # P08700-1). This protein carries a polyhistidine tag at the C-terminus. Predicted N-terminus: Ala 20 |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                |       |
|----------------|-------|
| <b>Species</b> | Human |
|----------------|-------|

|               |        |
|---------------|--------|
| <b>Source</b> | HEK293 |
|---------------|--------|

|                      |           |
|----------------------|-----------|
| <b>ProteinLength</b> | 20-152 aa |
|----------------------|-----------|

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|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Description</b> | <p>Interleukin 3 is also known as IL-3, is a protein that in humans is encoded by the IL3 gene. Interleukin-3 (IL-3) is an interleukin, a type of biological signal (cytokine) that can improve the body's natural response to disease as part of the immune system. It acts by binding to the interleukin-3 receptor. The IL-3 receptor is a heterodimer of the IL-3 specific <math>\alpha</math>-chain and the common <math>\beta</math>-chain, <math>\beta_c</math>, which is also used by GM-CSF and IL-5. Binding of IL-3 can also involve substitution of the <math>\beta_c</math> by a <math>\beta_{IL-3}</math>-chain that appears to be specific for IL-3. Binding of IL-3 to its cognate receptor(s) induces activation of Jak2, phosphorylation of multiple Stats, and the PI3K/Akt pathway. IL-3 may play an important role in the development of airway inflammation associated with asthma. The human IL-3 gene encodes a protein 152 amino acids long, and the naturally occurring IL-3 is glycosylated. The human IL-3 gene is located on chromosome 5, only 9 kilobases from the GM-CSF gene, and its function is quite similar to GM-CSF.</p> |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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|                       |                                                                                                                                                                                                                                                                                                                              |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Form</b>           | Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.                                                                                                                                                                                                                                       |
| <b>Specificity</b>    | Sterility: Negative                                                                                                                                                                                                                                                                                                          |
| <b>Bio-activity</b>   | Immobilized Human IL-3 Protein, His Tag at 5 µg/mL (100 µL/well) can bind Human IL-3 R alpha Protein, Llama IgG2b Fc Tag with a linear range of 0.039-2.5 µg/mL.                                                                                                                                                             |
| <b>Molecular Mass</b> | The protein has a calculated MW of 17.0 kDa. The protein migrates as 25-35 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.                                                                                                                                                                                 |
| <b>Endotoxin</b>      | Less than 0.3 EU/µg by the LAL method/rFC method.                                                                                                                                                                                                                                                                            |
| <b>Purity</b>         | >90% as determined by SDS-PAGE.                                                                                                                                                                                                                                                                                              |
| <b>Storage</b>        | This product is stable after storage at: -20 to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution. For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles. |
| <b>Reconstitution</b> | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 µg/µL. Centrifuge the vial at 4 centigrade before opening to recover the entire contents.                                                                                                                                       |

## GENE INFORMATION

|                        |                                                                                                                                                                      |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | IL3 interleukin 3 (colony-stimulating factor, multiple) [ Homo sapiens (human) ]                                                                                     |
| <b>Official Symbol</b> | IL3                                                                                                                                                                  |
| <b>Synonyms</b>        | IL3; interleukin 3 (colony-stimulating factor, multiple); interleukin-3; hematopoietic growth factor; IL 3; mast cell growth factor; MCGF; MGC79398; MGC79399; MULTI |

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CSF; multilineage colony stimulating factor; P cell stimulating factor; mast-cell growth factor; P-cell stimulating factor; P-cell-stimulating factor; multilineage-colony-stimulating factor; multipotential colony-stimulating factor; IL-3; MULTI-CSF;

**Gene ID** [3562](#)

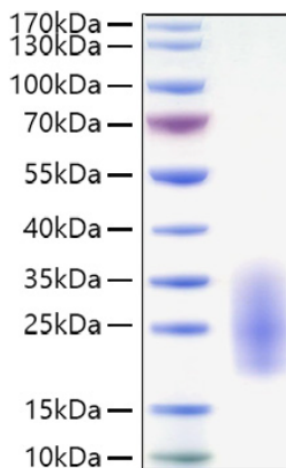
**mRNA Refseq** [NM\\_000588](#)

**Protein Refseq** [NP\\_000579](#)

**MIM** [147740](#)

**UniProt ID** [P08700](#)

**SDS-PAGE.**



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