

Active Recombinant Human Interleukin 3 (Colony-stimulating Factor, Multiple)

Cat. No. IL3-120H Lot. No. (See product label)

SPECIFICATION

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| Product Overview | Recombinant Human interleukin 3 (colony-stimulating factor, multiple) protein sequence (containing the signal peptide sequence, and the mature human Interleukin 3 sequence) was expressed in modified <i>human 293 cells</i> . |
| Species | Human |
| Source | HEK293 |
| Description | Interleukin-3 (IL-3) is a pleiotropic cytokine that regulates the proliferation, maturation, and survival of progenitor cells of the myeloid, erythroid, and megakaryocyte lineage. IL-3 is predominantly produced by activated T cells although expression has also been detected in monocytes and macrophages, NK-cells, mast cells, endothelial cells, and keratinocytes. |
| Amino Acid Sequence | APMTQTTSLKTS WVNCSNMID EIITHLKQPPL PLLDFNNLN GEDQDILME>NNL RRP NLEA FNRAVKSLQN ASAIESILKNLL PCLPLATAAPTRH PIHIKGDGWNE FRRKLTFYLKTLENAQAQQTTLSLAIF. |
| Molecular Mass | IL-3 migrates as a broad band between 15 and 25 kDa in SDS-PAGE due to post-translation modifications, in particular glycosylation. This compares with the unmodified IL-3 that has a predicted molecular mass of 15.1 kDa. |
| PI | IL-3 separates into a number of isoforms with a pI between 4.2 and 6.8 in 2D PAGE due to post-translational modifications, in particular glycosylation. This compares with |

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| | the unmodified IL-3 that has a predicted pI of 7.05. |
| % Carbohydrate | Purified IL-3 consists of 0-40% carbohydrate by weight. |
| Glycosylation | IL-3 has N-linked and possibly O-linked oligosaccharides. |
| Purity | >95%, as determined by SDS-PAGE and visualized by silver stain. |
| Formulation | When reconstituted in 0.5 ml sterile phosphate-buffered saline, the solution will contain 1% human serum albumin (HSA) and 10% trehalose. |
| Reconstitution | It is recommended that 0.5 ml of sterile phosphate-buffered saline be added to the vial. |
| Storage | Product should be stored at 2 to 8°C. Short-term storage at 4°C is recommended, and longer-term storage of aliquots at -18 to -20°C. Repeated freeze thawing is not recommended. |
| Activity | The ED ₅₀ of IL-3 is typically 0.1- 0.4 ng/ml as measured in a cell proliferation assay using the human growth factor dependent TF-1 cell line. |

GENE INFORMATION

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| Gene Name | IL3 interleukin 3 (colony-stimulating factor, multiple) [Homo sapiens] |
| Synonyms | IL3; interleukin 3 (colony-stimulating factor, multiple); IL-3; MCGF; MGC79398; MGC79399; MULTI-CSF; P-cell stimulating factor; hematopoietic growth factor; interleukin 3; mast-cell growth factor; multilineage-colony -stimulating factor; MULTI-CSF; Hematopoietic growth factor; P-cell-stimulating factor; Mast cell growth factor; Multipotential colony-stimulating factor |

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| Gene ID | 3562 |
| mRNA Refseq | NM_000588 |
| Protein Refseq | NP_000579 |
| MIM | 147740 |
| UniProt ID | P08700 |
| Chromosome Location | 5q31.1 |
| Pathway | Cytokine-cytokine receptor interaction; Jak-STAT signaling pathway; Asthma; Hematopoietic cell lineage; Fc epsilon RI signaling pathway |
| Function | interleukin-3 receptor activity; cytokine activity; growth factor activity; protein binding |

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