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

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

SPECIFICATION

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*human 293 cells*.
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 PIHIKDGDWNE 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

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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