

Active Recombinant Human IL3, His-tagged, Animal Free

Cat. No. IL3-145H Lot. No. (See product label)

SPECIFICATION

Product Overview

rhuman Interleukin-3 is a glycosylated polypeptide chain containing 133 amino acids (20 – 152 of P08700 IL3_HUMAN) and a His-tag at the N-terminal end. It has a predicted molecular mass of 16.2 KDa, however as result of glycosylation, the recombinant protein could migrate with an apparent molecular mass of 18-22 kDa in SDSPAGE. Human recombinant protein expressed in Nicotiana benthamiana. Recombinant human Interleukin-3 contains a 8-His-tag at the N-terminal end, is produced by transient expression in non-transgenic plants and is purified by sequential chromatography (FPLC). This product contains no animal-derived components or impurities. Animal free product.

Species

Human

Source

Nicotiana Benthamiana

ProteinLength

20-152 a.a.

Description

IL-3 is a potent growth factor involved in a variety of cell activities such as cell growth, differentiation and apoptosis. It takes part of several biological responses such as proliferation, and differentiation of a broad range of hematopoietic progenitor cells into erythrocytes, granulocytes, monocytes, megakaryocytic and mast cells. IL-3 also induces the production of several enzymes involved in cellular metabolism, differentiation, and DNA/RNA metabolism. IL-3 is produced by activated T-lymphocytes, keratinocytes, NK-cells, mast cells, endothelial cells and monocytes. The biological activity of IL-3 is mediated through specific cell surface receptor that is

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composed of alpha and beta subunits. Alpha subunit is responsible for the binding and beta subunit transmits signals across the plasma membrane; il-3 is known to activate three signalling pathways: JAK/STAT, RAS/RAF/MAP kinase, and the PI-3kinase/PKB pathways. IL-3 is also implicated in the pathogenesis of several diseases such as asthma, athero sclerosis and multiple sclerosis. Recombinant protein has been widely used in clinical practice, in the treatment of leukemia and as therapy for patients with bone marrow deficiency function.

Form	Recombinant human IL-3 is lyophilized from PBS 1X buffer pH 7.4.
Bio-activity	The activity is determined by the dose-dependent stimulation of TF-1 cells. ED50 of Agrenvec's rHuman IL-3 is typically less than 1 ng/ml.
Molecular Mass	rhuman Interleukin-3 is a glycosylated polypeptide chain containing 133 amino acids (20 – 152 of P08700 IL3_HUMAN) and a His-tag at the N-terminal end. It has a predicted molecular mass of 16.2 KDa, however as result of glycosylation, the recombinant p
AA Sequence	HHHHHHHHAPMTQTTS�KTSWVNCNMIDEIITHLKQPPLPLLDNFNNLNGEDQDILM ENNLRRPNLEAFNRAVKS LQNASAIESILKNLLPCLPLATAAPTRHPIHIKGDGWNFEF RRKLTFYKLTLENAQAQQTTLAIF
Endotoxin	< 0.04="" eu="" ug="" protein="" (lal="">
Purity	>97% by SDS-PAGE gel
Applications	Cell culture, Western Blot
Storage	This lyophilized preparation is stable at 2-8o C for short term, long storage it should be kept at -20oC. Reconstituted protein should be stored in working aliquots at

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–20°C. Repeated freezing and thawing is not recommended.

Reconstitution

Lyophilized protein should be reconstituted in water to a concentration of 50 ng/μl.
Optimal concentration should be determined for specific application and cell lines.
Optimal reconstitution please follow batch Quality Control sheet instructions.

GENE INFORMATION

Gene Name

IL3 interleukin 3 (colony-stimulating factor, multiple) [Homo sapiens]

Official Symbol

IL3

Synonyms

IL3; interleukin 3 (colony-stimulating factor, multiple); interleukin-3; hematopoietic growth factor; IL 3; mast cell growth factor; MCGF; MGC79398; MGC79399; MULTI 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

Chromosome Location

5q23-q31

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Pathway

Apoptosis, organism-specific biosystem; Apoptosis, conserved biosystem; Asthma, organism-specific biosystem; Asthma, conserved biosystem; Calcineurin-regulated NFAT-dependent transcription in lymphocytes, organism-specific biosystem; Calcium signaling in the CD4+ TCR pathway, organism-specific biosystem; Cytokine Signaling in Immune system, organism-specific biosystem;

Function

cytokine activity; growth factor activity; interleukin-3 receptor binding;

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