

Recombinant Human Interleukin 3 (colony-stimulating factor, multiple), HQ-tagged

Cat. No. IL3-604H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant humanIL3 is a globular protein consisting of 133 amino acid residues and a 16 asHQ tag. Total length is 149 aa.
Species	Human
Source	Hordeum Vulgare
Description	IL-3 stimulates the differentiation of multipotent hematopoietic stem cells into myeloid progenitor cells (as opposed to lymphoid progenitor cells where differentiation is stimulated by IL-7) as well as stimulates proliferation of all cells in the myeloid lineage (erythrocytes, megakaryocytes, granulocytes, monocytes, and dendritic cells). It is secreted by basophils and activated T cells to support growth and differentiation of T cells from the bone marrow in an immune response.
Form	Lyophilized from a 0.2 um sterile filtered solution of PBS, pH 7.2.
Molecular Weight	17.2 kDa. The glycosylated protein migrates with an apparent MW=22 kDa in SDS-PAGE.
Purity	>95% by SDS-PAGE. Purified product carries no pyrogenic or pro-inflammatory contaminants, as assayed with monocyte activation test using custom human Multiplex Cytokine Assay measuring IL-6, TNF-alpha and IL-1beta induction.
Endotoxin Level	<0.005 ng per ug of product (0.05 EU/ug) as measured by turbidimetric kinetic assay.

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Biological Activity	Bioactivity is assayed by measuring the dose dependent effect of human IL3 on proliferation of TF-1 cells. The ED50 for this batch of recombinant human IL3 is 0.97ng/ml.
Specific Activity	1.03 x 10 ⁶ units/mg
Reconstitution	Centrifuge vial prior to opening. First add sterile distilled water to the vial to fully solubilize the protein to a concentration not less than 100 ug/ml. After complete solubilization of the protein, it can be further diluted to other aqueous solutions.
Storage	The lyophilized protein, though stable at room temperature for two weeks, is best stored at -20°C. Reconstituted protein should be used immediately or stored in working aliquots at -20°C. Avoid repeated freeze-thaw cycles.
Official Symbol	IL3

GENE INFORMATION

Gene Name	IL3 interleukin 3 (colony-stimulating factor, multiple) [Homo sapiens]
Synonyms	IL3; interleukin 3 (colony-stimulating factor, multiple); mIL-3; MCGF; MGC79398; MGC79399; MULTI-CSF; interleukin-3; OTTHUMP00000065963; mast cell growth factor; mast-cell growth factor; P-cell stimulating factor; P-cell-stimulating factor; hematopoietic growth factor; multilineage-colony-stimulating factor; multipotential colony-stimulating factor
Gene ID	3562
mRNA Refseq	NM_000588
Protein Refseq	NP_000579

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MIM	147740
UniProt ID	P08700
Chromosome Location	5q23-q31
Pathway	Apoptosis; Asthma; Calcineurin-regulatedNFAT-dependent transcription in lymphocytes; Calcium signaling in the CD4+TCR pathway; Cytokine Signaling in Immune system; Cytokine-cytokine receptorinteraction; Fc epsilon RI signaling pathway; Hematopoietic cell lineage; IL-3Signaling Pathway; Immune System; Interleukin receptor SHC signaling; Interleukin-2signaling; Interleukin-3, 5 and GM-CSF signaling; Jak-STAT signaling pathway;Signaling by Interleukins
Function	cytokine activity; growthfactor activity; interleukin-3 receptor binding

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