IL-3 Human Active Protein

PRODUCT OVERVIEW

Product Name	IL-3, Active Protein
Full Product Name	Human IL-3
Product Gene Name	IL-3 active protein
Product Synonym Names	Recombinant Human Interleukin-3; Hemapoietic growth factor; Mast cell growth factor; P-cell-stimulating factor
Sequence	N-Terminal Sequence: MAPMTQT
Host	E Coli
Species Reactivity	Human
Form/Format	Lyophilized
Purity/Purification	> 98% by SDS-PAGE & silver stain
Preparation and Storage	The lyophilized IL-3, though stable at room temperature, is best stored desiccated below 0 degree C. Reconstituted IL-3 should be stored in working aliquots at -20 degree C.
Molecular Weight	15.0 kDa
Chromosome Location	Chromosome: 5; NC_000005.10 (132060654..132063203). Location: 5q31.1
OMIM	147740
3D Structure	ModBase 3D Structure for P08700
Active Protein Note	Protein activity can be an ambiguous term. Please refer to the data sheet or inquire with Technical Support to determine the definition of activity for this product.
Endotoxin Level	< 0.1ng per ug (IEU/ug) of rh IL-3
Buffer	PBS
Product Categories/Family for IL-3 active protein	Cytokines & Growth Factors
ISO Certification	Manufactured in an ISO 9001:2008 Certified Laboratory.
Related Product Information for IL-3 active protein	IL-3 is a hematopoietic growth factor that promotes the survival, differentiation and proliferation of committed progenitor cells of the megakaryocyte, granulocyte-macrophage, erythroid, eosinophil, basophil and mast cell lineages. Produced by T cells, mast cells and eosinophils, IL-3 enhances thrombopoieses, phagocytosis, and antibody-mediated cellular cytotoxicity. Its ability to activate monocytes suggests that IL-3 may have additional immunoregulatory roles. Many of the IL-3 activities depend upon co-stimulation with other cytokines. IL-3 is species-specific, variably glycosylated cytokine. Recombinant human IL-3 is a 15.0 kDa globular protein containing 133 amino acid residues.
Product References and Citations for IL-3 active protein	1. Ma, A. et al. (2006) Annu. Rev. Immunol. 24:657. 2. Gaffen, S.L. and K.D. Liu (2004) Cytokine 28:109. 3. Taniguchi, T. et al. (1983) Nature 302:305. 4. Mosmann, T.R. et al. (1987) J. Immunol. 138:1813. 5. Liparoto, S.F. et al. (2002) Biochemistry 41:2543. 6. Wang, X. et al. (2005) Science 310:1159. 7. Bodnar, A. et al. (2008) Immunol. Lett. 116:117. 8. Jaleco, S. et al. (2003) J. Immunol. 171:61. 9. Malek, T.R. (2003) J. Leukoc. Biol. 74:961.
Other Notes	Small volumes of IL-3 active protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for IL-3 purchase	MBS691744 is an active protein targeting IL-3. Also known as Human IL-3. Reactive in Human. Host: E Coli.

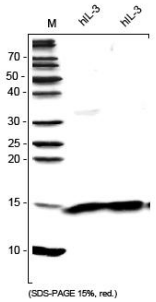


Figure 1. SDS-PAGE analysis of recombinant human IL-3. Samples were loaded in 15% SDS-polyacrylamide gel under reducing conditions and stained with Silver staining.

Testing Data of IL-3 active protein

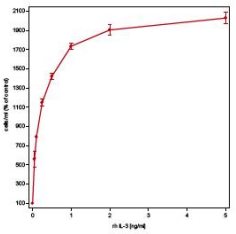


Fig. 2: Dose-dependent stimulation of cell proliferation in TF-1 cells by recombinant human IL-3. Values are the means (±SD) of triplicate determinations and expressed as percentage of control.

Testing Data #2 of IL-3 active protein

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for IL-3. It may not necessarily be applicable to this product.

NCBI GI #	28416915
NCBI GeneID	3562
NCBI Accession #	NP_000579
UniProt Primary Accession #	P08700
UniProt Secondary Accession #	Q6GS87
UniProt Related Accession #	P08700
GenBank Nucleotide #	NM_000588
NCBI Official Full Name	interleukin-3
NCBI Official Synonym Full Names	interleukin 3 (colony-stimulating factor, multiple)
NCBI Official Symbol	IL3
NCBI Official Synonym Symbols	IL-3; MCGF; MULTI-CSF
UniProt Protein Name	Interleukin-3
UniProt Synonym Protein Names	Hematopoietic growth factor; Mast cell growth factor; MCGF; Multipotential colony-stimulating factor; P-cell-stimulating factor
UniProt Gene Name	IL3
UniProt Synonym Gene Names	IL-3; MCGF
UniProt Entry Name	IL3_HUMAN
NCBI Protein Information	interleukin-3; 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
NCBI Summary for IL-3	The protein encoded by this gene is a potent growth promoting cytokine. This cytokine is capable of supporting the proliferation of a broad range of hematopoietic cell types. It is involved in a variety of cell activities such as cell growth, differentiation and apoptosis. This cytokine has been shown to also possess neurotrophic activity, and it may be associated with neurologic disorders. [provided by RefSeq, Jul 2008]

UniProt Comments for IL-3	Function: Granulocyte/macrophage colony-stimulating factors are cytokines that act in hematopoiesis by controlling the production, differentiation, and function of 2 related white cell populations of the blood, the granulocytes and the monocytes-macrophages.This CSF induces granulocytes, macrophages, mast cells, stem cells, erythroid cells, eosinophils and megakaryocytes. Subunit structure: Monomer. Subcellular location: Secreted. Tissue specificity: Activated T-cells, mast cells, natural killer cells. Sequence similarities: Belongs to the IL-3 family.
Research Articles on IL-3	**1.** Genetic variation in the IL3 promoter affects human brain volume by regulating proliferation and survival of neural progenitors.
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