

Human IL-3 / Interleukin-3 Protein (His Tag)

Catalog Number: 11858-H08B



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

IL-3, MCGF, MGC79398, MGC79399, MULTI-CSF

Protein Construction:

A DNA sequence encoding the human IL3 (NP_000579.2) (Met 1-Phe 152) was expressed, fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio-Activity

1. Measured in a cell proliferation assay using TF1 human erythroleukemic cells (Kitamura, T. et al. 1989 J. Cell Physiol. 140: 323.) . The ED50 for this effect is typically 0.3-1.5 ng/ml .
2. Measured by its binding ability in a functional ELISA . Immobilized human IL3 at 20 µg/ml (100 µl/well) can bind human IL3Ra with a linear ranger of 0.064-1.6 µg/ml. Immobilized human IL3 at 20 µg/ml (100 µl/well) can bind biotinylated human IL3Ra with a linear ranger of 0.32-1.6 µg/ml.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Ala 20

Molecular Mass:

The recombinant human IL3 consists of 143 amino acids and predicts a molecular mass of 16.5 kDa. It migrates as an approximately 19 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 7.4

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

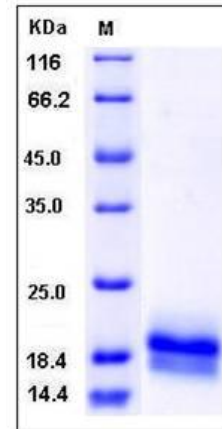
Usage Guide

Storage:

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

Interleukin-3, also known as Hematopoietic growth factor, Mast cell growth factor, Multipotential colony- stimulating factor, P-cell-stimulating factor and IL3, is a secreted protein which belongs to the IL-3 family. Interleukin-3 originally was discovered by JN Ihle in mice. He found a T cell derived factor that induced the synthesis of 20 alpha-hydroxysteroid dehydrogenase in hematopoietic cells and termed it interleukin-3. Interleukin-3 / IL-3 is an interleukin, a type of biological signal (cytokine) that can improve the body's natural response to disease as part of the immune system. It acts by binding to the interleukin-3 receptor. Interleukin-3 / 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). Interleukin-3 / IL-3, which is an hematopoietic growth factor as well as an important factor that aids in embryo implantation and placental development, was found to be decreased both in pregnant women with antiphospholipid syndrome (APS) and in animal models of APS. Interleukin-3 / IL-3 also participates in the response of the organism to various types of stress.

References

1. Ihle JN, et al.,1981, J. Immunol. 126 (6): 2184-9.
2. Ihle JN, et al.,1985, Meth. Enzymol. 116: 540-52.
3. Yang YC, et al.,1986, Cell. 47 (1): 3-10.
4. Shoenfeld, Y. et al., 1998, Scand J Rheumatol Suppl. 107: 19-22.
5. Galanakis, E. et al., 2002, Infection. 30 (1): 33-4.

Manufactured By Sino Biological Inc., FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.

Fax :+86-10-51029969 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>