

Recombinant Human IL-3 Protein

Catalog No.: RP01362

Sequence Information

Species **Gene ID**
Human 3562

Swiss Prot **Tags**
P08700 C-His

Synonyms
IL3,IL-3,MCGF,MULTI-CSF

Product Information

Source **Purification**
HEK293 cells ≥ 95 % as
determined by
SDS-PAGE.

Calculated MW **Observed MW**
15.93 kDa 20–35 kDa

Endotoxin
< 1 EU/μg of the protein by LAL
method.

Formulation
Lyophilized from a 0.22 μm filtered
solution of PBS, pH 7.4.

Reconstitution
Centrifuge the vial before opening.
Reconstitute to a concentration of
0.1–0.5 mg/mL in sterile distilled
water. Avoid vortex or vigorously
pipetting the protein. For long
term storage, it is recommended
to add a carrier protein or stabilizer
(e.g. 0.1% BSA, 5% HSA, 10% FBS
or 5% Trehalose), and aliquot the
reconstituted protein solution to
minimize free-thaw cycles.

Background

IL3 (interleukin 3), also known as IL-3, is a potent growth-promoting cytokine that belongs to the IL-3 family. IL3/IL-3 also belongs to the group of interleukins. Interleukins are produced by a wide variety of body cells. The function of the immune system depends in a large part on interleukins, and rare deficiencies of a number of them have been described, all featuring autoimmune diseases or immune deficiency. The majority of interleukins are synthesized by helper CD4+ T lymphocytes, as well as through monocytes, macrophages, and endothelial cells. They promote the development and differentiation of T, B, and hematopoietic cells. IL3/IL-3 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. IL3/IL-3 has been shown to also possess neurotrophic activity, and it may be associated with neurologic disorders.

Basic Information

Description

Recombinant Human IL-3 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ala20-Phe152) of human interleukin-3/IL-3 (Accession #NP_000579.2) fused with a 6×His tag at the C-terminus.

Activity

1. Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The ED₅₀ for this effect is 1.5–6 ng/mL.
2. Recombinant Human TPO (50 ng/mL, Cat. RP00174), IL-3 (15 ng/mL), IL-6 (15 ng/mL, Cat. RP00201) and IL-11 (15 ng/mL, Cat. RP00050) induce hematopoietic stem and progenitor cells to differentiate into megakaryocytes. After 6 days, the induction of CD41/42+ megakaryocytes was successful.

Shipping

Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage

Store at -20°C

Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

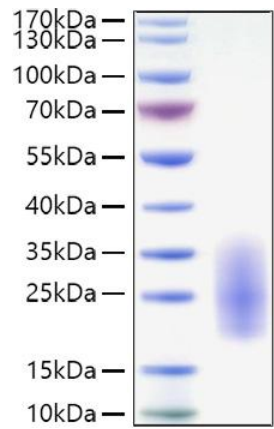
Contact

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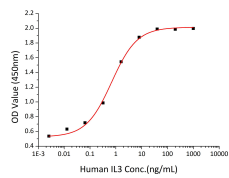
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Validation Data



Recombinant Human IL-3 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Recombinant Human IL3 promotes the proliferation of TF 1 human erythroleukemic cells. The ED₅₀ for this effect is 0.345–1.38 ng/mL, corresponding to a specific activity of 7.25×10⁵~2.90×10⁶ units/mg.