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Recombinant Mouse IL-3 Protein

Catalog No.: RP01386 Recombinant

Sequence Information

Species Gene ID Swiss Prot HEK293 cells 16187 P01586

Tags C-His

Synonyms

BPA;Csfmu;HCGF;IL-3;MCGF;PSF;IL3

Product Information

Source Purification
HEK293 cells > 90% by SDS-

PAGE.

Endotoxin

<0.1EU/µg

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 stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

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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 Mouse IL-3 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Met1-Cys166) of mouse IL3 (Accession $\#NP_034686.2$.) fused with a $6\times His$ tag at the C-terminus.

Bio-Activity

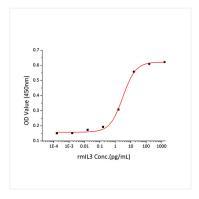
Measured in a cell proliferation assay using BaF3 mouse pro-B cells. The ED₅₀ for this effect is 1.5-6 pg/mL, corresponding to a specific activity of $1.67 \times 10 < \text{sup} < 8.67 \times 10 < \text{$

Storage

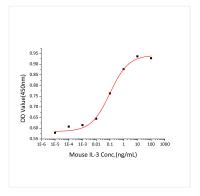
Store at -20° C. Store the lyophilized protein at -20° C to -80° C up to 1 year from the date of receipt.

 After reconstitution, the protein solution is stable at -20° C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

Validation Data



Recombinant Mouse IL3 promotes the proliferation of BaF3 mouse pro-B cells. The ED $_{50}$ for this effect is 1.5-6 pg/mL, corresponding to a specific activity of $1.67 \times 10^8 \sim 6.67 \times 10^8$ units/mg.



Recombinant Mouse IL3 promotes the proliferation of NFS 60 mouse myelogenous leukemia lymphoblast cells. The ED $_{50}$ for this effect is 48 \square 192 pg/mL, corresponding to a specific activity of $5.22\times10^6\sim2.08\times10^7$ units/mg.