

Recombinant Rat IL-3 Protein

Catalog No.: RP01789 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Rat	24495	P97688

Tags

C-His

Synonyms

IL-3;IL3

Product Information

Source	Purification
HEK293 cells	> 97% by SDS-PAGE.

Calculated MW	Observed MW
17.01 kDa	25-30 kDa

Endotoxin

< 0.1EU/ μ g


Formulation

Lyophilized from a 0.22 μ m 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.

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 Rat IL-3 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ile27-Cys169) of rat IL-3 (Accession #NP_113701.1) fused with a 6 \times His tag at the C-terminus.

Bio-Activity

Measured in a cell proliferation assay using NFS-60 mouse myelogenous leukemia lymphoblast cells. The ED₅₀ for this effect is 2.6-10.6 ng/mL, corresponding to a specific activity of 9.4 \times 10⁴~3.85 \times 10⁵ units/mg.

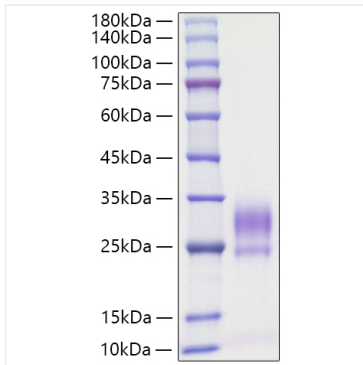
Storage

Store at -20 $^{\circ}$ C. Store the lyophilized protein at -20 $^{\circ}$ C to -80 $^{\circ}$ C up to 1 year from the date of receipt.

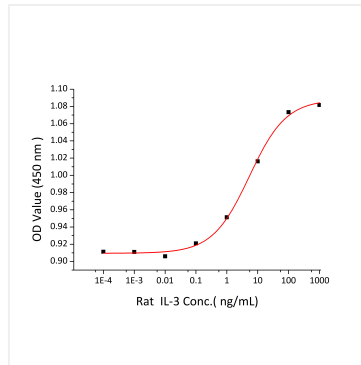
After reconstitution, the protein solution is stable at -20 $^{\circ}$ C for 3 months, at 2-8 $^{\circ}$ C for up to 1 week.

Avoid repeated freeze/thaw cycles.

Validation Data



Recombinant Rat IL-3 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 25-35 kDa.



Recombinant Rat IL-3 stimulates cell proliferation of the NFS_x005f[60 mouse myelogenous leukemia lymphoblast cells. The ED₅₀ for this effect is 2.6-10.6 ng/mL, corresponding to a specific activity of $9.4 \times 10^4 \sim 3.85 \times 10^5$ units/mg.