

Human IL-3 Protein, premium grade

Catalog # IL3-H5115



BIOSYSTEMS
Acro

Features and Advantages

- Seamless Transition from Preclinical to Clinical: Same cell clone, process, and QC as GMP products.
- Enhanced Production Standards: AOF raw materials, pharma-grade excipients, Grade B+A (ISO 5) environment.
- Comprehensive Quality Control: Additional strict testing for process impurities, sterility, and mycoplasma.
- Cost-Effective Solution: GMP-comparable quality at an economical price for early development.
- Risk Mitigation: Enhanced safety through rigorous impurity control and comprehensive testing.

Synonym

IL3, MCGF, MGC79398, MGC79399, MULTI-CSF, Interleukin-3

Source

Human IL-3 Protein, premium grade (IL3-H5115) is expressed from *E. coli* cells. It contains AA Ala 20 - Phe 152 (Accession # [P08700-1](#)).

Predicted N-terminus: Met

It is produced under our rigorous quality control system that incorporates a comprehensive set of tests including sterility and endotoxin tests. Product performance is carefully validated and tested for compatibility for cell culture use or any other applications in the early preclinical stage.

GMP-L03H18 is the GMP version of this IL3-H5115. These two proteins display indistinguishable performance profiles, thereby ensuring a seamless transition for end users from early preclinical stage to later clinical phases.

Molecular Characterization

IL-3(Ala 20 - Phe 152)
P08700-1

This protein carries no "tag".

The protein has a calculated MW of 15.2 kDa. The protein migrates as 14 kDa $\pm$ 3 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE).

Endotoxin

Less than 0.01 EU per μ g by the LAL method / rFC method.

Host Cell Protein

<0.5 ng/ μ g of protein tested by ELISA.

Host Cell DNA

<0.02 ng/ μ g of protein tested by qPCR.

Sterility

Negative

Mycoplasma

Negative

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μ m filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 24 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

ACRO Quality Management System

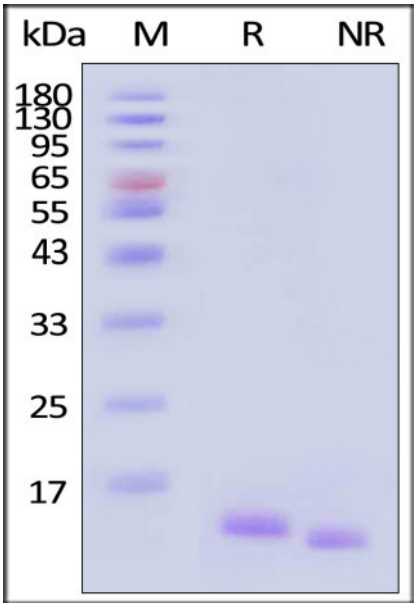
- [QMS\(ISO, GMP\)](#).
- [Quality Advantages](#)
- [Quality Control Process](#)

Quality Description

ACRO's Research-grade products are suitable for a wide range of cell culture applications, particularly for research use in academic institutions. These products are sterilized by filtration, followed by lyophilization where applicable. Typical specifications include endotoxin levels of <0.01 EU/μg and purities >95%. Biological activity is calibrated against WHO/NIBSC standards when available.

ACRO's Premium-grade (Pre-GMP) products are characterized by their high quality and enhanced safety profiles, making them ideal for early-stage discovery and manufacturing processes in cell therapy companies. A key advantage is their seamless transition to corresponding GMP-grade versions. Biological activity is calibrated against WHO/NIBSC standards when available. Typical specifications include endotoxin levels of <0.01 EU/μg and purities >95%. In addition, rigorous testing is conducted to ensure the absence of mycoplasma, HCD, and HCP, thereby guaranteeing product safety.

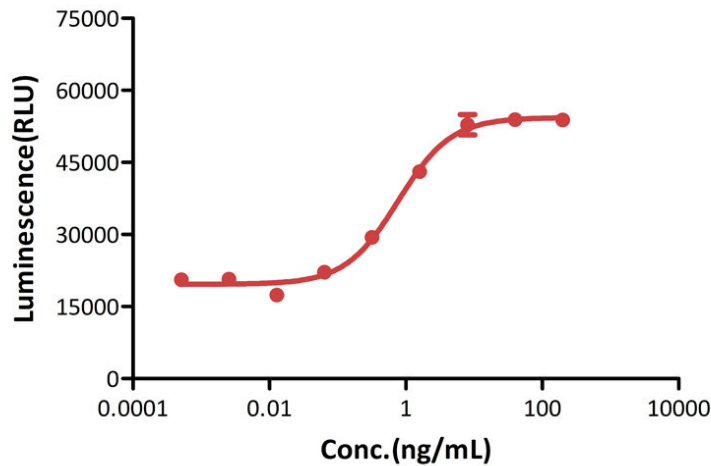
SDS-PAGE



Human IL-3 Protein, premium grade on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

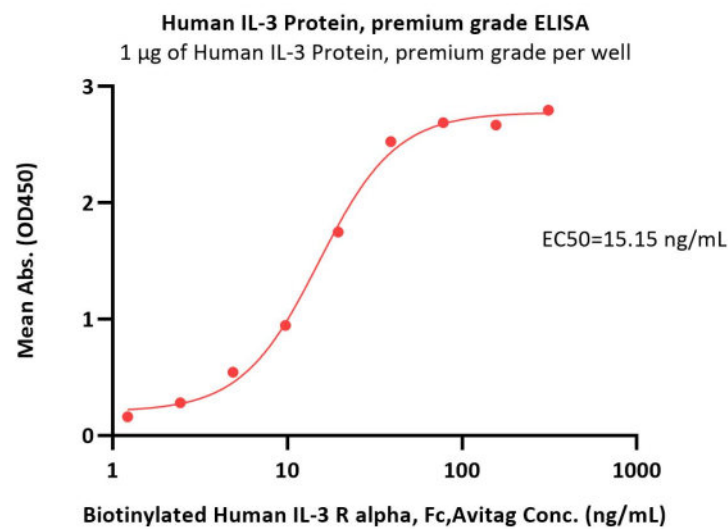
Bioactivity-CELL BASE

Human IL-3, premium grade stimulates proliferation of TF-1 cells



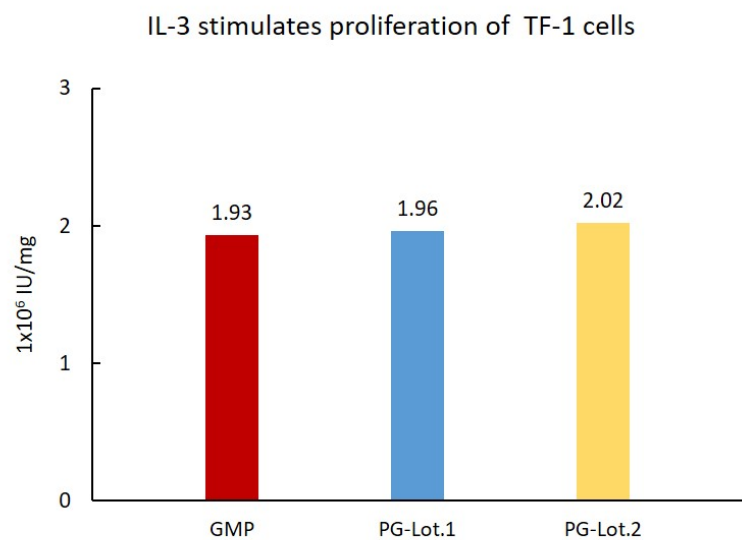
Human IL-3 Protein, premium grade (Cat. No. IL3-H5115) stimulates proliferation of TF-1 cell. The specific activity of Human IL-3 Protein, premium grade is > 1.00x10⁶ IU/mg, which is calibrated against human IL-3 WHO International Standard (NIBSC code: 91/510) (QC tested).

Bioactivity-ELISA



Immobilized Human IL-3 Protein, premium grade (Cat. No. IL3-H5115) at 10 µg/mL (100 µL/well) can bind Biotinylated Human IL-3 R alpha, Fc,Avitag (Cat. No. ILA-H82F3) with a linear range of 1.2-40 ng/mL (QC tested).

Bioactivity-Stability



Cell-based assay demonstrates batch-to-batch consistency between Acro's GMP and PG IL-3.

Background

Interleukin-3 (IL-3) is an interleukin, a type of biological signal (cytokine) which is encoded by the IL-3 gene located on chromosome 5 and produced primarily by activated T cells beside human thymic epithelial cells, activated murine mast cells, murine keratinocytes and neurons/astrocytes. The protein acts in hematopoiesis by controlling the production, differentiation, and function of 2 related white cell populations of the blood, the granulocytes and the monocytes-macrophages. The human IL-3 reported to be a monomer, as it is known, contains 133 amino acids residues which is a single non-glycosylated polypeptide. Specifically, human and murine IL-3 share low homology and it does not show activity on murine cells.



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