



## Synonym

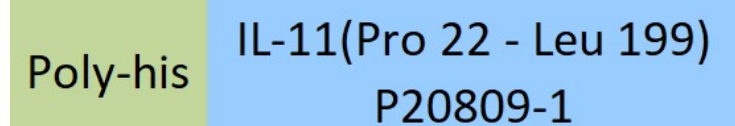
IL-11, Interleukin-11, AGIF, Oprelvekin, IL11

## Source

Human IL-11 Protein, His Tag(IL1-H5243) is expressed from human 293 cells (HEK293). It contains AA Pro 22 - Leu 199 (Accession # [P20809-1](#)).

Predicted N-terminus: His

## Molecular Characterization



This protein carries a polyhistidine tag at the N-terminus.

The protein has a calculated MW of 21.0 kDa. The protein migrates as 23-29 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Endotoxin

Less than 0.1 EU per µg by the LAL method.

## Sterility

Negative

## Purity

>90% as determined by SDS-PAGE.

## Formulation

Lyophilized from 0.22 µm filtered solution in Cirtate buffer, pH3.0 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

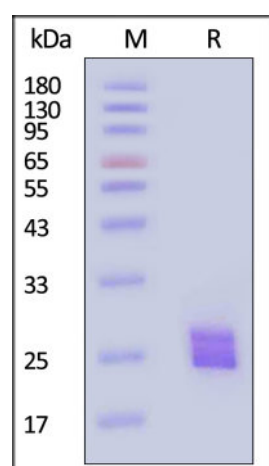
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## SDS-PAGE



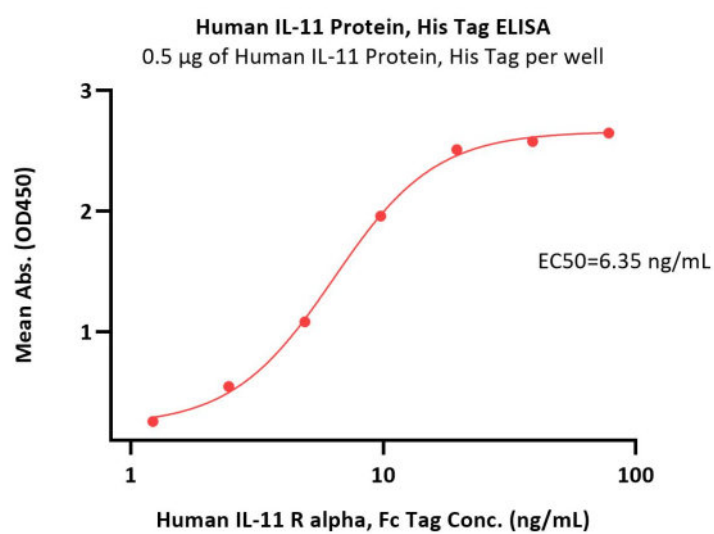
Human IL-11 Protein, His Tag on SDS-PAGE under reducing (R) condition.

The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

## Bioactivity-ELISA

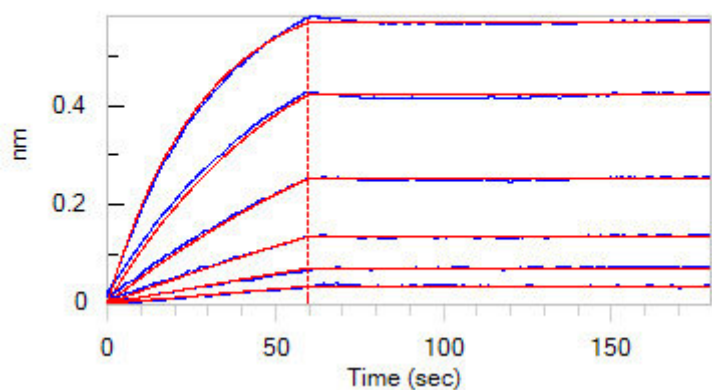
Discounts, Gifts,  
and more!





Immobilized Human IL-11 Protein, His Tag (Cat. No. IL1-H5243) at 5 µg/mL (100 µL/well) can bind Human IL-11 R alpha, Fc Tag (Cat. No. ILR-H5256) with a linear range of 1-10 ng/mL (QC tested).

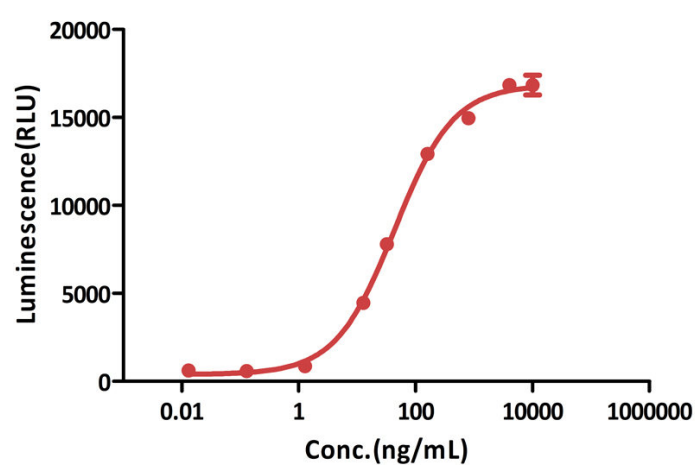
### Bioactivity-BLI



Loaded Human IL-11 Protein, His Tag (Cat. No. IL1-H5243) on HIS1K Biosensor, can bind Human IL-11 R alpha, Fc Tag (Cat. No. ILR-H5256) with an affinity constant of 0.177 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

### Bioactivity-Bioactivity CELL BASE

**Human IL-11 Protein, His Tag stimulates proliferation of STAT3 (Luc) HEK293 Reporter Cell**



Human IL-11 Protein, His Tag (Cat. No. IL1-H5243) stimulates proliferation of STAT3 (Luc) HEK293 Reporter Cell. The specific activity of Human IL-11 Protein, His Tag is >8.00 x 10<sup>3</sup> U/mg (QC tested).

Discounts, Gifts,  
and more!





## Background

Interleukin-11 (IL-11) is a pleiotropic cytokine that stimulates megakaryocytopoiesis, resulting in increased production of platelets, as well as activating osteoclasts, inhibiting epithelial cell proliferation and apoptosis, and inhibiting macrophage mediator production. These functions may be particularly important in mediating the hematopoietic, osseous and mucosal protective effects of IL-11. The cytokine also possesses anti-inflammatory activity, and has been proposed as a therapeutic agent in the treatment of chronic inflammatory diseases, such as Crohn's disease and rheumatoid arthritis. Although IL-11 was initially believed to be restricted to mammals, subsequent studies demonstrated it to be expressed in fish. Despite close similarity in gene structure and conservation of key amino acids between fish and mammalian IL-11, they share relatively low overall amino acid identity and may not necessarily be functionally analogous.

## Clinical and Translational Updates

Discounts, Gifts,  
and more!

