# Human IL11 / Interleukin 11 / IL-11 Protein

**Catalog Number:** 12225-HNCE

Sino Biological
Biological Solution Specialist

## General Information

**Gene Name Synonym:**

AGIF; IL-11

**Protein Construction:**

A DNA sequence encoding the mature form of human IL11 (AAH12506.1) (Pro22-Leu199) was expressed.

**Source:** Human

**Expression Host:** E. coli

## QC Testing

**Purity:** > 90 % as determined by SDS-PAGE

**Bio-Activity:**

1.Measured in a cell proliferation assay using T1165 mouse plasmacytoma cells. The ED50 for this effect is typically 1-8 ng/mL.
2.Loaded Human IL11RA Protein, His Tag (Cat. No. 10252-H08H) on His1K Biosensor, can bind Human IL11 protein (Cat. No. 12225-HNCE) with an affinity constant of 0.353nM as determined in BLI assay (Sartorius Octet Red384) (Routinely tested).

**Endotoxin:**

Please contact us for more information.

**Stability:**

Samples are stable for up to twelve months from date of receipt at -70 ℃

**Predicted N terminal:** Pro 22

**Molecular Mass:**

The recombinant human IL11 consists of 178 amino acids and predicts a molecular mass of 19.1 KDa. It migrates as an approximately 23 KDa band in SDS-PAGE under reducing conditions.

**Formulation:**

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

**Storage:**

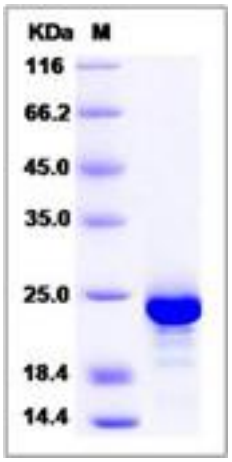
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

**Reconstitution:**

Detailed reconstitution instructions are sent along with the products.

**SDS-PAGE:**




## Protein Description

IL11 is a multifunctional cytokine first isolated in 1990 from bone marrow-derived stromal cells. It is a key regulator of multiple events in hematopoiesis, most notably the stimulation of megakaryocyte maturation. IL11 is also known under the names adipogenesis inhibitory factor (AGIF) and oprelvekin. IL11 can improve platelet recovery after chemotherapy-induced thrombocytopenia, induce acute phase proteins, modulate antigen-antibody responses, participate in the regulation of bone cell proliferation and differentiation and could be use as a therapeutic for osteoporosis. IL11 stimulates the growth of certain lymphocytes and, in the murine model, stimulates an increase in the cortical thickness and strength of long bones. As a signaling molecule, IL11 has a variety of functions associated with its receptor interleukin 11 receptor alpha; such functions include placentation and to some extent of decidualization.

**References**

1.McKinley D. et al., 1992, Genomics. 13 (3): 814-9. 2.Paul SR. et al., 1990, Proc Natl Acad Sci. 87 (19): 7512-6. 3.Kawashima I. et al., 1991, FEBS Lett. 283 (2): 199-202.