

# Human IL6 / Interleukin-6 Protein

Catalog Number: 10395-HNAE



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

BSF2; HGF; HSF; IFNB2; IL-6; Interleukin-6

### Protein Construction:

A DNA sequence encoding the mature form of human IL6 (NP\_000591.1) (Val 30-Met 212) was expressed, with an initial Met at the N-terminus.

**Source:** Human

**Expression Host:** E. coli

## QC Testing

**Purity:** > 95 % as determined by SDS-PAGE

### Bio Activity:

1. Measured by its binding ability in a functional ELISA. Immobilized recombinant human IL-6 at 8 µg/ml (100 µl/well) can bind recombinant human IL6R with a linear range of 1.25-20.0 ng/mL.
2. Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The ED<sub>50</sub> for this effect is 0.75-3 ng/mL. The specific activity of Recombinant Human IL-6 is approximately 0.35 × 10<sup>5</sup> IU/µg.

### Endotoxin:

Please contact us for more information.

### Stability:

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

**Predicted N terminal:** Met

### Molecular Mass:

The recombinant human IL6 consists of 184 amino acids and migrates with an apparent molecular mass of 20.3 kDa as estimated 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:

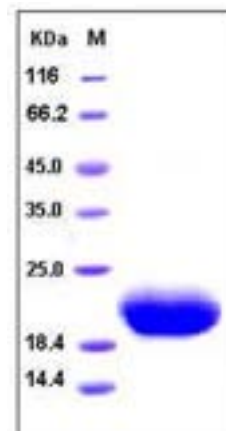
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Interleukin-6 (IL-6) is a multifunctional  $\alpha$ -helical cytokine that regulates cell growth and differentiation of various tissues, which is known particularly for its role in the immune response and acute phase reactions. IL-6 protein is secreted by a variety of cell types including T cells and macrophages as phosphorylated and variably glycosylated molecule. It exerts actions through its heterodimeric receptor composed of IL-6R that lacks the tyrosine/kinase domain and binds IL-6 with low affinity, and ubiquitously expressed glycoprotein 130 (gp130) that binds the IL-6. IL-6R complex with high affinity and thus transduces signals. IL-6 is also involved in hematopoiesis, bone metabolism, and cancer progression, and has been defined an essential role in directing transition from innate to acquired immunity.

## References

1. Heinrich PC. et al. (2003). Principles of interleukin-6-type cytokine signalling and its regulation. *Biochem J.* 374: 1-20.
2. Rose-John S, et al. (2007) The IL-6/sIL-6R complex as a novel target for therapeutic approaches. *Expert Opin Ther Targets.* 11(5): 613-24.
3. Dinh W, et al. (2009) Elevated plasma levels of TNF-alpha and interleukin-6 in patients with diastolic dysfunction and glucose metabolism disorders. *Cardiovasc Diabetol.* 8:58.

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