

# Mouse IL6 / Interleukin-6 Protein



Sino Biological  
Biological Solution Specialist

Catalog Number: 50136-MNAE

## General Information

### Gene Name Synonym:

Il-6

### Protein Construction:

A DNA sequence encoding the mouse IL6 (P08505) (Phe25-Thr211) was expressed and purified.

**Source:** Mouse

**Expression Host:** E. coli

## QC Testing

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

### Bio Activity:

Measured in a cell proliferation assay using T1165 mouse plasmacytoma cells. The ED<sub>50</sub> for this effect is typically 0.1-0.8 ng/mL.

### Endotoxin:

< 1.0 EU per µg protein as determined by the LAL method.

**Predicted N terminal:** Met

### Molecular Mass:

The recombinant mouse IL6 consists of 188 amino acids and predicts a molecular mass of 21.9 KDa. It migrates as an approximately 22 KDa band in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from sterile 50mM HAc, pH3.0

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

### Stability & Storage:

Samples are stable for twelve months from date of receipt at -20°C to -80°C.

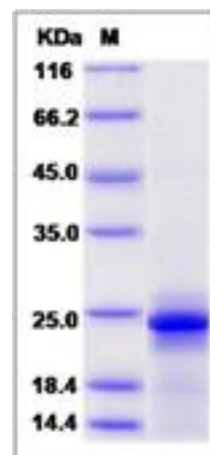
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**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 a 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 as an essential role in directing the 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.