

# Rat IL6 / Interleukin-6 Protein

Catalog Number: 80076-RNAE



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

IL6

### Protein Construction:

A DNA sequence encoding the rat IL6 (NP\_036721.1)(Phe25-Thr211) was expressed and purified with an initial Met.

**Source:** Rat

**Expression Host:** E. coli

## QC Testing

**Purity:** > 85 % 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 1-6 ng/ml.

### Endotoxin:

Please contact us for more information.

**Predicted N terminal:** Met

### Molecular Mass:

The recombinant rat IL6 consists of 188 amino acids and has a predicted molecular mass of 21.9 kDa. As a result of glycosylation, the apparent molecular mass of the recombinant protein is approximately 22 kDa in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from sterile 40% acetonitrile, 0.1% TFA

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.

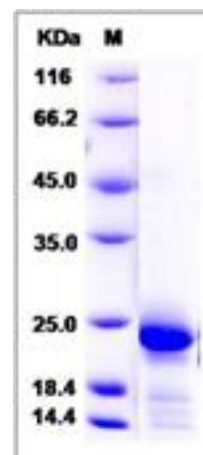
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**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 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 13 (gp13) 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.