

# Mouse IL6 / Interleukin-6 Protein

Catalog Number: 50136-MNAE



**Sino Biological Inc.**

Biological Solution Specialist

## General Information

### Gene Name Synonym:

IL6, 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:** > 95 % as determined by SDS-PAGE

### Bio-Activity

1. Measured by its ability to bind biotinylated rat IL6ST-mFch (Cat:80030-R06H) in a functional ELISA.
2. Measured by its ability to bind biotinylated mouse IL6ST-Fc2h (Cat:50135-M03C) in a functional ELISA.
3. Measured by its ability to bind biotinylated mouse IL6ST-His (Cat:50135-M08H) in a functional ELISA.
4. Measured by its ability to bind biotinylated human IL6RB-Fch (Cat:10974-H03H) in a functional ELISA.
5. Measured in a cell proliferation assay using T1165 mouse plasmacytoma cells. The ED50 for this effect is typically 0.4-2 ng/ml.

### 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 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 PBS, pH 7.4

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

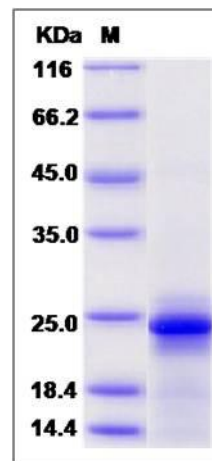
## Usage Guide

### 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.

### SDS-PAGE:



### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## Protein Description

Interleukin 6 (IL-6, IL6) is a potent pleiotropic cytokine that regulates cell growth and differentiation of various tissues, and is known particularly for its role in the immune response and acute phase reactions. IL-6/IL6 is a cytokine with a wide variety of biological functions and belongs to the IL-6 superfamily. IL-6/IL6 is a potent inducer of the acute phase response and plays an essential role in the final differentiation of B-cells into Ig-secreting cells. Involved in lymphocyte and monocyte differentiation. IL-6/IL6 is an interleukin that acts as both a pro-inflammatory and anti-inflammatory cytokine. The role of IL-6 as an anti-inflammatory cytokine is mediated through its inhibitory effects on TNF-alpha and IL-1, and activation of IL-1Ra and IL-10. IL-6/IL6 is secreted by T cells and macrophages to stimulate immune response to trauma, especially burns or other tissue damage leading to inflammation. IL-6/IL6 is also essential for hybridoma growth and is found in many supplemental cloning media such as briclone. Inhibitors of IL-6 are used to treat postmenopausal osteoporosis. IL-6/IL6 is thought to be a reason why obese individuals have higher endogenous levels of CRP. Intranasally administered IL-6 was shown to improve sleep-associated consolidation of emotional memories.

### References

1. Kishimoto T. et al., 1995, Blood. 86: 1243-54.
2. Heinrich PC. et al., 1998, Biochem. J. 334: 297-314.?
3. Heinrich PC. et al., 2003, Biochem. J. 374: 1-20.?
4. Chung HW. et al., 2003, J. Hum. Genet. 48:243-8.
5. Schwantner A. et al., 2004, J. Biol. Chem. 279(1): 571-6.
6. Dubi? ski A. et al., 2007, Pol. Merkur. Lekarski. 22?(130): 291-4.

Manufactured By Sino Biological Inc., FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.

Fax :+86-10-51029969 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>