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) (Val30-Met212) 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. Immobilized Human IL-6 (Cat:10395-HNAE) at 2 μg/mL (100 μL/well) can bind Human IL-6R hFc(Cat:10398-H02H), the EC50 of Human IL-6R hFc(Cat:10398-H02H) is 3.0-10.0 ng/mL.
2. Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The ED50 for this effect is 0.1-0.8 ng/mL.
3. Loaded Recombinant Human IL-6R Protein, His Tag (Cat. No. 10398-H08H) on HIS1K Biosensor, can bind Recombinant Human IL-6 Protein (Cat. No. 10395-HNAE) with an affinity constant of 75.9 nM as determined in BLI assay (Sartorius Octet RED384) (Routinely tested).

Endotoxin:

< 10 EU per mg of the protein.

Predicted N terminal: Met

Molecular Mass:

The recombinant human IL6 consists of 184 amino acids and predicts a molecular mass of 20.95 kDa. It migrates as an approximately 19.7 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

Stability & Storage:
Samples are stable for twelve months from date of receipt at -20℃ to -80℃.

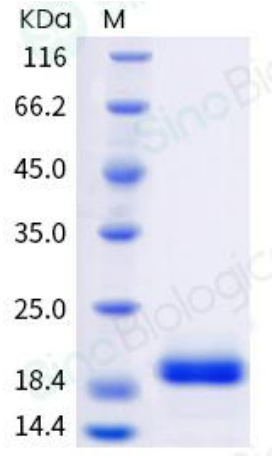
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Interleukin-6 (IL-6) is a multifunctional α-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.