



## Synonym

IL6, Interleukin-6, BSF2, HSF, IFNB2

## Source

Biotinylated Human IL-6, epitope tag free, primary amine labeling (IL6-H8218) is expressed from human 293 cells (HEK293). It contains AA Val 30 - Met 212 (Accession # [P05231-1](#)).

Predicted N-terminus: Val 30

## Molecular Characterization

IL-6 (Val 30 - Met 212)  
NP\_000591

This protein carries no "tag".

The protein has a calculated MW of 20.8 kDa. The protein migrates as 23-25 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Labeling

*The primary amines in the side chains of lysine residues and the N-terminus of the protein are conjugated with biotins using standard chemical labeling method. A standard biotin reagent (13.5 angstroms) is used in this product.*

## Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

## Endotoxin

Less than 1.0 EU per µg by the LAL method.

## Purity

>95% as determined by SDS-PAGE.

## Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

## Reconstitution

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

## Storage

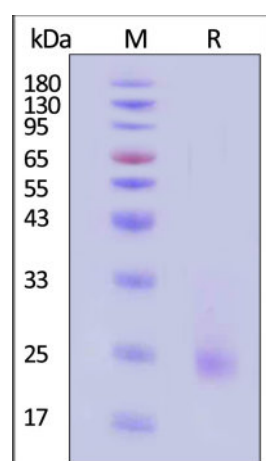
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## SDS-PAGE



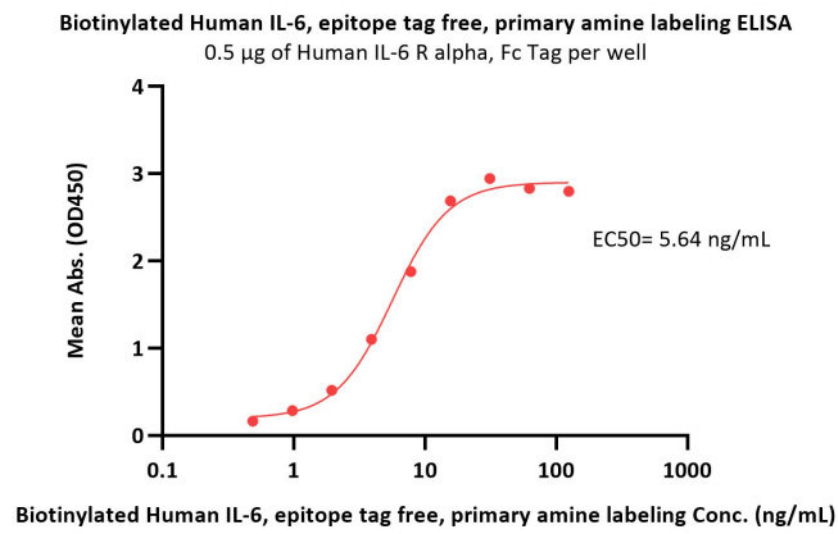
Biotinylated Human IL-6, epitope tag free, primary amine labeling on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

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and more!



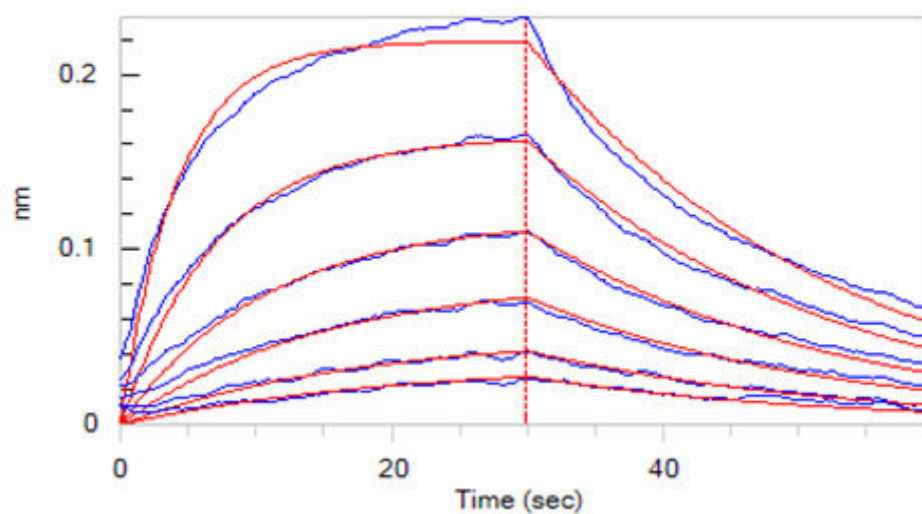


## Bioactivity-ELISA



Immobilized Human IL-6 R alpha, Fc Tag (Cat. No. ILR-H5259) at 5 µg/mL (100 µL/well) can bind Biotinylated Human IL-6, epitope tag free, primary amine labeling (Cat. No. IL6-H8218) with a linear range of 0.5-16 ng/mL (QC tested).

## Bioactivity-BLI



Loaded Biotinylated Human IL-6, epitope tag free, primary amine labeling (Cat. No. IL6-H8218) on SA Biosensor, can bind Human IL-6 R alpha, His Tag (Cat. No. ILR-H4223) with an affinity constant of 45.9 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

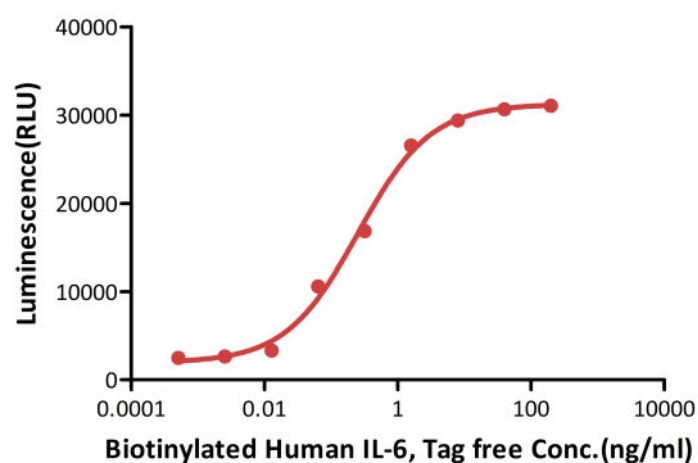
## Bioactivity-Bioactivity CELL BASE

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**Biotinylated Human IL-6, Tag free stimulates proliferation of TF-1 cells**



Biotinylated Human IL-6, epitope tag free, primary amine labeling (Cat. No. IL6-H8218) stimulates proliferation of TF-1 human erythroleukemic cell line. The EC50 for this effect is 0.2532-0.4489 ng/mL (Routinely tested).

### Background

Interleukin 6 (IL-6) is also known as HGF, BSF2, HSF, IFNB2 and IL-6, originally identified as a B cell differentiation factor, is a multifunctional cytokine that regulates immune responses, hematopoiesis, acute phase responses, and inflammatory reactions. It is secreted by T cells, macrophages, monocytes, fibroblasts, endothelial cells, et al. to stimulate immune response to trauma, especially burns or other tissue damage leading to inflammation. Interleukin 6 has been shown to interact with interleukin-6 receptor and glycoprotein. IL-6 is relevant to many disease processes such as diabetes, atherosclerosis, depression, Alzheimer's Disease, systemic lupus erythematosus, prostate cancer and rheumatoid arthritis. Advanced/metastatic cancer patients have higher levels of IL-6 in their blood. Hence there is an interest in developing anti-IL-6 agents as therapy against many of these diseases.

### Clinical and Translational Updates

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