Biotinylated Human IL-6 Protein, epitope tag free, ultra sensitivity, primary amine labeling

Catalog # IL6-H8218



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) P05231-1

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 <u>Star Ribbon Pre-stained Protein Marker</u> 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.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from $0.22~\mu m$ 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

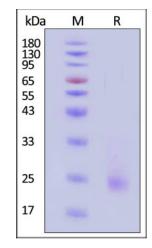
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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

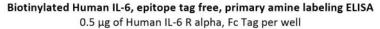


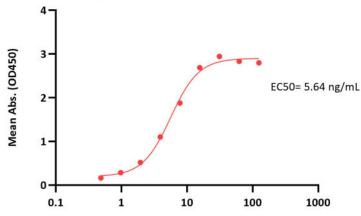
Biotinylated Human IL-6, epitope tag free, primary amine labeling on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

Bioactivity-ELISA





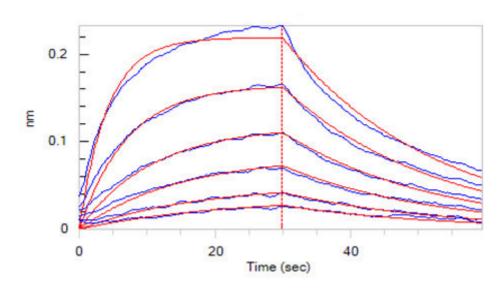




Biotinylated Human IL-6, epitope tag free, primary amine labeling Conc. (ng/mL)

Immobilized Human IL-6 R alpha, Fc Tag (Cat. No. ILR-H5259) at 5 μ g/mL (100 μ L/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).

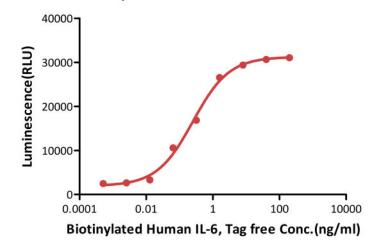
Bioactivity-BLI



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-CELL BASE

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





Biotinylated Human IL-6 Protein, epitope tag free, ultra sensitivity, primary amine labeling

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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.

