

Recombinant Human IL6 Protein

Catalog No.: RP00004 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Human	3569	P05231

Tags

C-6×His

Synonyms

BSF-2;BSF2;CDF;HGF;HSF;IFN-beta-2;IFNB2;IL-6

Product Information

Source	Purification
<i>E. coli</i>	> 95% by SDS-PAGE.

Endotoxin

< 0.1 EU/μg of the protein by LAL method.

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.

Reconstitution

Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water.

Background

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. The encoded protein has been shown to be an endogenous pyrogen capable of inducing fever in people with autoimmune diseases or infections. The protein is primarily produced at sites of acute and chronic inflammation, where it is secreted into the serum and induces a transcriptional inflammatory response through interleukin 6 receptor, alpha. The functioning of this protein is implicated in a wide variety of inflammation-associated disease states, including susceptibility to diabetes mellitus and systemic juvenile rheumatoid arthritis.

Basic Information

Description

Recombinant Human IL6 Protein is produced by *E. coli* expression system. The target protein is expressed with sequence (Pro29-Met212) of human IL6 (Accession #NP_000591.1) fused with an initial Met at the N-terminus and a 6×His tag at the C-terminus.

Bio-Activity

Measured by its binding ability in a functional ELISA. Immobilized Recombinant Human IL6R at 1 μg/mL (100 μL/well) can bind Recombinant Human IL-6 with a linear range of 20-70 ng/mL. Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The ED₅₀ for this effect is 2-4 ng/mL.

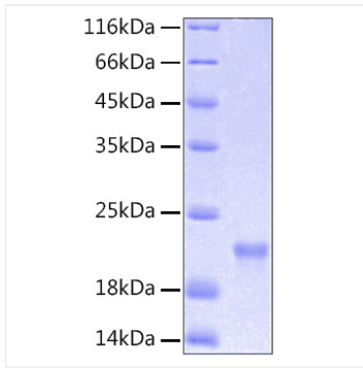
Storage

Store the lyophilized protein at -20°C to -80 °C for long term. After reconstitution, the protein solution is stable at -20 °C for 3 months, at 2-8 °C for up to 1 week. Avoid repeated freeze/thaw cycles.

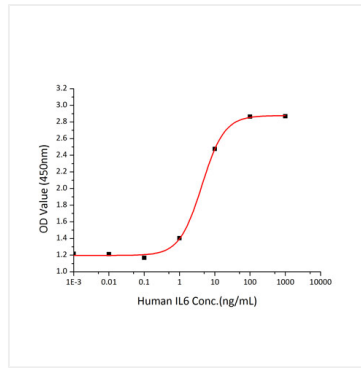
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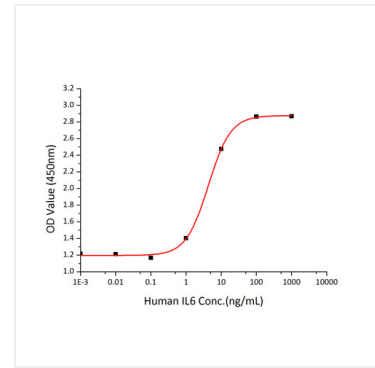
Validation Data



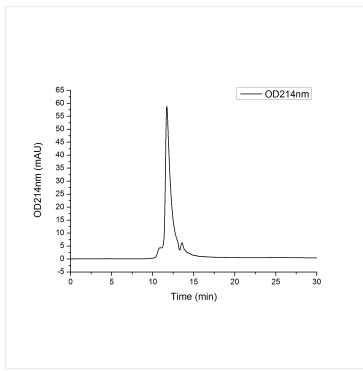
Recombinant Human IL6 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 21 kDa.



Immobilized Recombinant Human IL6R at 1 $\mu\text{g/mL}$ (100 $\mu\text{L/well}$) can bind Recombinant Human IL-6 with a linear range of 20-70 ng/mL.



Recombinant Human IL6 stimulates cell proliferation of the TF-1 human erythroleukemic cells. The ED_{50} for this effect is 2-4 ng/mL.



The purity of Human IL6 Protein (Cat.RP00004) was greater than 90% as determined by SEC-HPLC.