

# **Recombinant Human TNF-alpha Protein**

Catalog No.: RP00993 Recombinant 3 Publications

### **Sequence Information**

Species Gene ID Swiss Prot Human 7124 P01375

### **Tags**

C-His

#### **Synonyms**

TNF; DIF; TNF-alpha; TNFA; TNFSF2; TNLG1F; tumor necrosis factor;TNF-

α;DIF;TNF

alpha;TNFA;TNFSF2;TNLG1F;TNF alpha

### **Product Information**

**Source** Purification HEK293 cells ≥ 95 % as

determined by SDS-

PAGE.

### Calculated MW Observed MW

18.19 kDa 18 kDa

#### **Endotoxin**

< 0.1 EU/ $\mu$ g 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

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

### Contact

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### **Background**

Tumor necrosis factor alpha (TNF-alpha), also kNown as TNF, TNFA or TNFSF2, is the prototypic cytokine of the TNF superfamily. This cytokine is mainly secreted by macrophages. It can bind to, and thus functions through its receptors TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. This cytokine is involved in the regulation of a wide spectrum of biological processes including cell proliferation, differentiation, apoptosis, lipid metabolism, and coagulation. This cytokine has been implicated in a variety of diseases, including autoimmune diseases, insulin resistance, and cancer. KNockout studies in mice also suggested the neuroprotective function of this cytokine.

#### **Basic Information**

### **Description**

Recombinant Human TNF-alpha Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Val 77 - Leu 233 ) of human TNF-alpha (Accession  $\#NP_000585.2$ ) fused with a  $6\times His$  tag at the C-terminus.

### **Bio-Activity**

Recombinant Human TNF-alpha induces cytotoxicity in the L-929 mouse fibroblast cells in the presence of the metabolic inhibitor actinomycin D. The ED $_{50}$  for this effect is 0.90-3.60 ng/mL, corresponding to a specific activity of  $2.78 \times 10^5 \sim 1.11 \times 10^6$  units/mq.

### **Shipping**

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

### Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt

After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

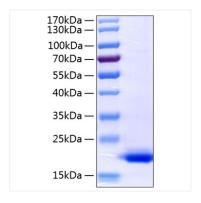
Avoid repeated freeze/thaw cycles.

#### **Operational Notes**

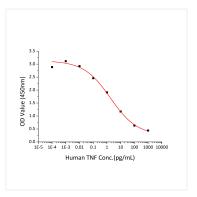
For your safety and health, please wear a lab coat and disposable gloves for handling.

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## **Validation Data**



Recombinant Human TNF-alpha Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



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