

RP00993

Leader in Biomolecular Solutions for Life Science



Recombinant Human TNF-alpha Protein

Catalog No.: RP00993

Recombinant

6 Publications

Sequence Information

Species	Gene ID	Swiss Prot
HEK293 cells	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	$\geq 95\%$ as determined by SDS-PAGE.

Endotoxin

< 0.1 EU/ μ g of the protein by LAL method.

Formulation

Lyophilized from a 0.22 μ m 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 stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact



www.abclonal.com

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/TNFR2. 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 6xHis tag at the C-terminus.

Bio-Activity

1. Recombinant Human TNF-alpha induces cytotoxicity in the L-929 mouse fibroblast cells in the presence of the metabolic inhibitor actinomycin D. The ED50 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/mg. 2. At concentrations ranging from 0.01 to 5 ng/mL, M5 factor (RP03505 IL1A, RP00212 IL17A, RP01616 IL22, RP00993 TNF α , RP00054 OSM) promotes the proliferation of HaCaT cells.

Shipping

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

Operational Notes

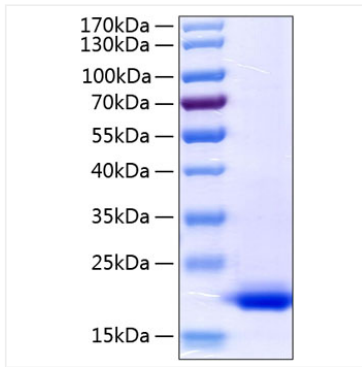
For your safety and health, please wear a lab coat and disposable gloves for handling.

Storage

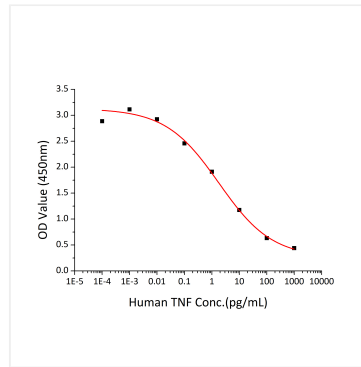
Store at -20°C. Store the lyophilized protein at -20°C to -80°C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

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

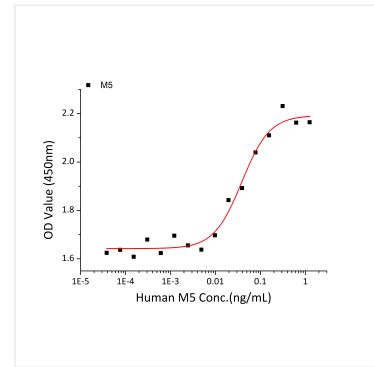
Validation Data



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



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 $2.78 \times 10^5 \sim 1.11 \times 10^5$ units/mg.



At concentrations ranging from 0.01 to 5 ng/mL, M5 factor (RP03505 IL1A,RP00212 IL17A,RP01616 IL22,RP00993 TNF α ,RP00054 OSM) promotes the proliferation of HaCaT cells.