Recombinant Human TNF-alpha Protein

Catalog No.: RP00993

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Sequence Information

Species
Human

Gene ID
7124

Swiss Prot
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
HEK293 cells

Purification
≥ 95 % as determined by SDS-PAGE.

Calculated MW
18.19 kDa

Observed MW
18 kDa

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
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.

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×His tag at the C-terminus.

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 2.78×105~1.11×106 units/mg.2.At concentrations ranging from 0.01 to 5 ng /mL, M5 factor (RP03505 IL1A,RP00212 IL17A,RP01616 IL22,RP00993 TNFα, RP00054 OSM)promotes the proliferation of HaCaT cells.

Shipping
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃

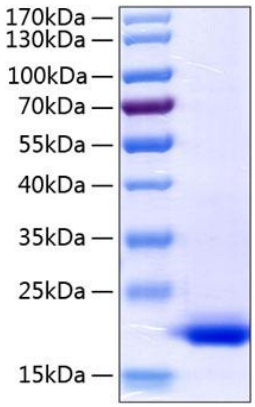
Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

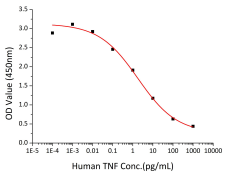
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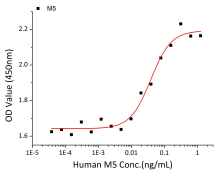
Validation Data



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 2.78×10^{5}~1.11×10^{6} units/mg.



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