

Recombinant Mouse TNF-alpha Protein

Catalog No.: RP01702 Recombinant 3 Publications

Sequence Information

Species Gene ID Swiss Prot Mouse 21926 P06804

Tags No tag

Synonyms

DIF; Tnfa; TNF-a; TNFSF2; Tnlg1f; Tnfsf1a; TNFalpha; TNF-alpha; TNF

Product Information

Source

Purification

HEK293 cells

≥ 90 % as determined by SDS-

PAGE.

Calculated MW Observed MW

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.

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.

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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, and is a multifunctional molecule involved in the regulation of a wide spectrum of biological processes including cell proliferation, differentiation, apoptosis, lipid metabolism, and coagulation. Two receptors, TNF-R1 (TNF receptor type 1; CD120a; p55/60) and TNF-R2 (TNF receptor type 2; CD120b; p75/80), bind to TNF-alpha. TNF-alpha protein is produced mainly by macrophages, and large amounts of this cytokine are released in response to lipopolysaccharide, other bacterial products, and Interleukin-1 (IL-1). TNF-alpha is involved in fighting against the tumorigenesis, thus, is regarded as a molecular insight in cancer treatment.

Basic Information

Description

Recombinant Mouse TNF-alpha Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Leu80-Leu235) of mouse TNF-alpha/TNF (Accession #NP 038721.1.) fused with no additional amino acid.

Bio-Activity

Recombinant Mouse 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 typically 29-116 pg/mL, corresponding to a specific activity of 8.62×10^6 - 3.45×10^7 units/mq.

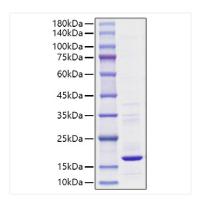
Storage

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

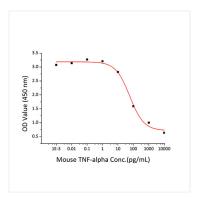
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

Validation Data



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



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