

RP01322

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Recombinant Rat TNF-alpha Protein

Catalog No.: RP01322

Recombinant

Sequence Information

Species	Gene ID	Swiss Prot
Rat	24835	P16599

Tags

C-His

Synonyms

DIF;TNF-alpha;TNFA;TNFSF2;cachexin;cachectin;TNFα;TNFA

Product Information

Source	Purification
HEK293 cells	> 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.

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 freeze-thaw cycles.

Background

Tumor necrosis factor alpha is a cytokine produced primarily by monocytes and macrophages. It is found in synovial cells and macrophages in the tissues. The primary role of TNFα is in the regulation of immune cells. TNFα is able to induce apoptotic cell death, to induce inflammation, and to inhibit tumorigenesis and viral replication. Dysregulation of TNFα production has been implicated in a variety of human diseases, including major depression, Alzheimer's disease and cancer. Recombinant TNFα is used as an immunostimulant under the INN tasonermin. TNF-alpha is involved in fighting against the tumorigenesis, thus, is regarded as a molecular insight in cancer treatment.

Basic Information

Description

Recombinant Rat TNF-alpha Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Leu80-Leu235) of Rat TNFA (Accession #NP_036807.1) fused with an 6×His tag at the C-terminus.

Bio-Activity

1. Measured in a cytotoxicity assay using L-929 mouse fibrosarcoma cells in the presence of metabolic inhibitor actinomycin D. The ED₅₀ for this effect is typically 0.0125-0.05 pg/mL.

Storage

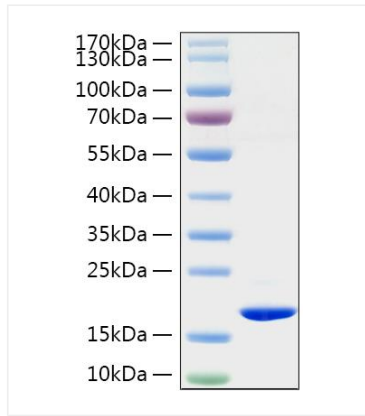
Store the lyophilized protein at -20°C to -80°C for long term. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

Contact

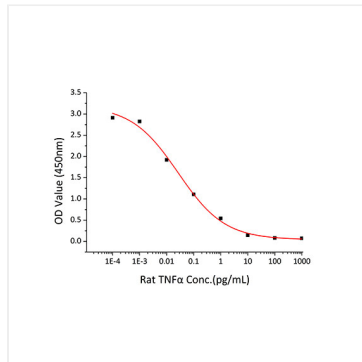


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Validation Data



Recombinant Rat TNF-alpha Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 18kDa.



Recombinant Rat TNF-alpha induces cytotoxicity in the L-929 mouse fibroblast cell line in the presence of the metabolic inhibitor actinomycin D. The ED₅₀ for this effect is 0.0125-0.05 pg/mL.