

Recombinant Rat TNF-alpha Protein

Catalog No.: RP01322

Sequence Information

Species Gene ID

Rat 24835

Swiss Prot Tags

P16599 C-His

Synonyms

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

Product Information

Source Purification

HEK293 cells ≥ 95 % as determined by SDS-PAGE.

Calculated MWObserved MW

18.91 kDa 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.

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.

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.

Activity

Recombinant Rat 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 typically 3.37–13.48 pg/mL, corresponding to a specific activity of 7.42×10⁷~2.97×10⁸ units/mg.

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°C

Operational Notes

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

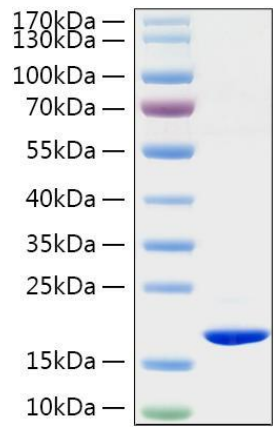
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☎ | 400-999-6126

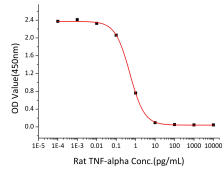
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Validation Data



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



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