

Recombinant human TNF-alpha protein

Catalog Number: TNF0501

PRODUCT INFORMATION

Expression system

E.coli

Domain

77-233aa

UniProt No.

P01375

NCBI Accession No.

NP_000585.2

Alternative Names

Tumor necrosis factor, Cachectin, TNF-alpha, Tumor necrosis factor ligand superfamily member 2, TNFSF2, TNF-a, TNFA, TNF

PRODUCT SPECIFICATION

Molecular Weight

17.5 kDa (158aa) confirmed by MALDI-TOF

Concentration

1mg/ml (determined by Bradford assay)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4)

Purity

> 95% by SDS-PAGE

Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity

Measured in a cytotoxicity assay using L-929 mouse fibroblast cells in the presence of the metabolic inhibitor actinomycin D. The ED50 range \leq 0.2ng/ml.

Tag

Non-Tagged

Application

SDS-PAGE, Bioactivity

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

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BACKGROUND

Description

Tumor necrosis factor alpha (TNF-alpha), also called cachectin, consists of 157 amino acids. TNF-alpha is a 17.5 kD factor produced by neutrophils, CD4+ T cells, macrophage, NK cells, LAK cells, astrocytes endothelial cells, and smooth muscle cells. TNF-alpha is cytolytic and plays an important role in immune regulation including hemorrhagic tumor necrosis/cytotoxicity and inflammation, and in regulation of antiviral and immune proliferative and activation responses. The active form of this protein is a trimer. Recombinant human TNF-alpha was expressed in E. coli and purified by using conventional chromatography techniques. Additional amino acid, methionine, was attached at N-terminus of the protein.

Amino acid Sequence

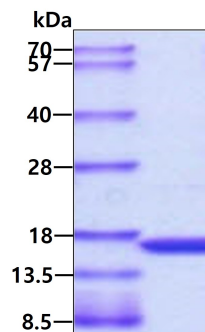
MVRSSSRTPS DKPVAHVVAN PQAEGQLQWL NRRANALLAN GVLRDNQLV VPSEGLYLIY SQVLFKGQGC PSTHVLLTHT ISRIAVSYQT KVNLLSAIKS PCQRETPEGA EAKPWYEPIY LGGVFQLEKG DRLSAEINRP DYLDFAESGQ VYFGIIAL

General References

Chicoine M.R., et al. (1997), J. Neurooncol. 35: 249-57
Ruddle N.H., et al. (1992), Curr. Opin. Immunol. 4: 327-32
Wingfield P., et al. (1987), FEBS Lett. 211:179-184

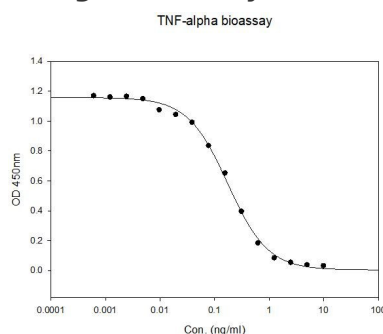
DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

Biological Activity



Human TNF-alpha induces cell cytotoxicity in the L-929 mouse fibroblast cells in the presence of the metabolic inhibitor actinomycin D.