

Recombinant mouse TNF-alpha protein

Catalog Number: ATGP3184

PRODUCT INFORMATION

Expression system

Baculovirus

Domain

80-235aa

UniProt No.

P06804

NCBI Accession No.

NP_038721

Alternative Names

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

PRODUCT SPECIFICATION

Molecular Weight

18kDa (162aa)

Concentration

1mg/ml (determined by absorbance at 280nm)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4)

Purity

> 90% 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 0.02ng/ml.

Tag

His-Tag

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

TNF, also known as tumor necrosis factor isoform 1, is the prototypic ligand of the TNF superfamily. It is a pleiotropic molecule that plays a central role in inflammation, apoptosis, and immune system development. This protein is produced by a wide variety of immune and epithelial cell types. It is assembled intracellularly to form a noncovalently linked homotrimer which is expressed on the cell surface. Cell surface TNF can induce the lysis of neighboring tumor cells and virus infected cells, and it can generate its own downstream cell signaling following ligation by soluble TNFR I. It also promotes inflammatory responses by inducing the activation of vascular endothelial cells and macrophages. Recombinant Mouse TNF, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

Amino acid Sequence

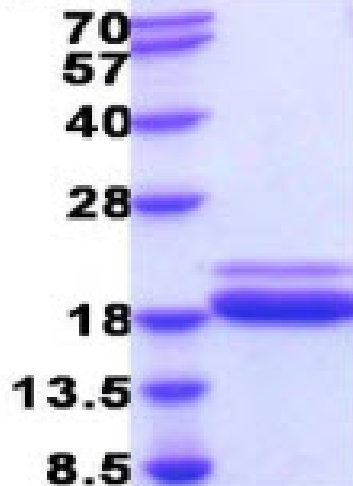
LRSSSQNSSD KPVAVHVVANH QVEEQLEWLS QRANALLANG MDLKDNLV V PADGLYLVYS QVLFKGGQCP DYVLLTHTVS
RFAISYQEKV NLLSAVKSPC PKDTPEGAEL KPWYEPIYLG GVFQLEKGDQ LSAEVNLPKY LDFAESGQVY FGVIALHHHH HH

General References

Marafini I., et al. (2015) PLoS One. 10(5):e0126291.
Zelova H., et al. (2013) Inflamm Res. 62(7):641-651.

DATA

SDS-PAGE

(kDa)

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

15% SDS-PAGE (3ug)

Biological Activity

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

