

Recombinant bovine TNF-alpha protein

Catalog Number: ATGP4076

PRODUCT INFORMATION

Expression system

E.coli

Domain

78-234aa

UniProt No.

Q06599

NCBI Accession No.

NP_776391

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) containing 10% glycerol

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 $\leq$ 15ng/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

TNF-alpha, also known as tumor necrosis factor, 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 Bovine TNF-alpha was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

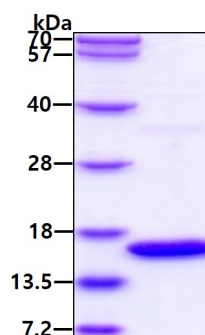
MLRSSSQASS NKPVAHVVD INSPGQLRWW DSYANALMAN GVKLEDNQLV VPADGLYLIY SQVLFRGQGC PSTPLFLTHT
ISRIAVSYQT KVNILSAIKS PCHRETPEWA EAKPWYEPIY QGGVFQLEKG DRLSAEINLP DYLDYAESGQ VYFGIIAL

General References

Bojarojc-Nosowicz B., et al (2015). Pol J Vet Sci. 18(3): 533-9.
Lendez PA., et al (2015). Arch Virol. 160(8): 2001-7.

DATA

SDS-PAGE



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

Biological Activity

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

