

# Recombinant human TNF-alpha protein

Catalog Number: ATGP3152

## PRODUCT INFORMATION

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### Expression system

Baculovirus

### 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

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### Molecular Weight

18.1 kDa (163aa)

### Concentration

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

### 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  $\leq$  0.2ng/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, is cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin-1 secretion and is implicated in the induction of cachexia, under certain conditions it can stimulate cell proliferation and induce cell differentiation. Recombinant human TNF, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

### Amino acid Sequence

<ADP>VRSSSRT PSDKPVAVHV ANPQAEGQLQ WLNRRANALL ANGVELRDNQ LVPSEGLYL IYSQVLFKGGQ  
GCPSTHVLLT HTISRIAVSY QTKVNLLSAI KSPCQRETPE GAEAKPWYEP IYLGGVFQLE KGDRLSAEIN RPDYLDFAES  
GQVYFGIIAL <HHHHHH>

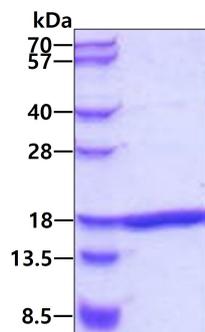
### General References

Friedmann E. et al., (2006) Nat. Cell Biol. 8:843-848.

Zhang XM. et al., (1992) J. Biol. Chem. 267:24069-24075.

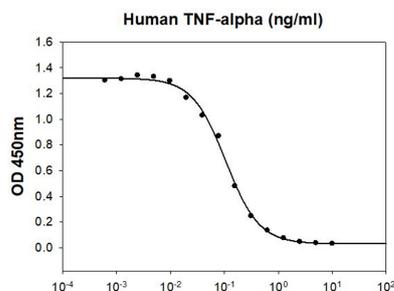
## DATA

### 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.