

# Recombinant Human TNF-alpha protein (His Tag)

Catalog Number: Eg0816

## Basic Information

**Species:**  
Human

**Purity:**  
>90 %, SDS-PAGE

**Tag:**  
His Tag

## Technical Specifications

**Purity:**

>90 %, SDS-PAGE

**Endotoxin Level:**

<0.1 EU/ µg protein, LAL method

**Source:**

HEK293-derived Human TNF-alpha protein Val77-Leu233 (Accession# P01375) with a His tag at the C-terminus.

**GeneID:**

7124

**Accession:**

P01375

**Predicted Molecular Mass:**

18.2 kDa

**SDS-PAGE:**

15-18 kDa, reducing (R) conditions

**Formulation:**

Lyophilized from 0.22 µm filtered solution in PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.

## Biological Activity

Not tested

## Storage and Shipping

**Storage:**

It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

- Until expiry date, -20°C to -80°C as lyophilized proteins.
- 3 months, -20°C to -80°C under sterile conditions after reconstitution.

**Shipping:**

The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

## Reconstitution

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

## Background

TNF, as also known as TNF-alpha, or cachectin, is a multifunctional proinflammatory cytokine that belongs to the tumor necrosis factor (TNF) superfamily. It is expressed as a 26 kDa membrane bound protein and is then cleaved by TNF-alpha converting enzyme (TACE) to release the soluble 17 kDa monomer, which forms homotrimers in circulation. It is produced chiefly by activated macrophages, although it can be produced by many other cell types such as CD4+ lymphocytes, NK cells, neutrophils, mast cells, eosinophils, and neurons. It can bind to, and thus functions through its receptors TNFRSF1A/TNFR1 and TNFRSF1B/TNFR2. This cytokine is involved in the regulation of a wide spectrum of biological processes including cell proliferation, differentiation, apoptosis, lipid metabolism, and coagulation. Dysregulation of TNF production has been implicated in a variety of human diseases including Alzheimer's disease, cancer, major depression and inflammatory bowel disease (IBD).

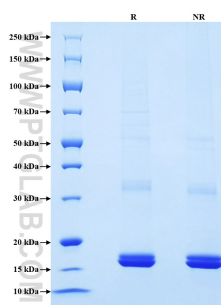
## References

- 1.F Buchegger. et al. (1984). Int J Cancer. 33(5):643-649.
- 2.Linshu Zhao. et al. (2004). Br J Haematol. 125(5):666-673.
- 3.M Kuroki. et al. (2001). J Leukoc Biol. 70(4):543-550.
- 4.S Oikawa. et al. (1991). J Biol Chem. 266(13):7995-8001.
- 5.T Yamanka. et al. (1996). Biochem Biophys Res Commun. 219(3):842-847.

## Synonyms

TNF, TNF alpha, TNF-a, C-domain 1, C-domain 2

## Selected Validation Data



Purity of Recombinant Human TNF-alpha was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) and non-reducing (NR) conditions and stained using Coomassie blue.

For technical support and original validation data for this product please contact

T: 027-87531629

E: [Proteintech-CN@ptglab.com](mailto:Proteintech-CN@ptglab.com)

W: [ptgcn.com](http://ptgcn.com)

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