# Recombinant Human TNF-alpha/TNFA Protein

**Catalog Number:PKSH033490**

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***Note:*** Centrifuge before opening to ensure complete recovery of vial contents.

## Description

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|---|---|
| **Synonyms** | Tumor Necrosis Factor;Cachectin;TNF-Alpha;Tumor Necrosis Factor Ligand Superfamily Member 2;TNF-a;TNF;TNFA;TNFSF2 |
| **Species** | Human |
| **Expression Host** | E.coli |
| **Sequence** | Val77-Leu233 |
| **Accession** | P01375 |
| **Calculated Molecular Weight** | 17.5 kDa |
| **Observed molecular weight** | 16 kDa |
| **Tag** | None |
| **Bioactivity** | Measured in a cytotoxicity assay using L-929 mouse fibroblast cells in the presence of the metabolic inhibitor actinomycin D. The ED50 for this effect is 10-50 pg/ml. |

## Properties

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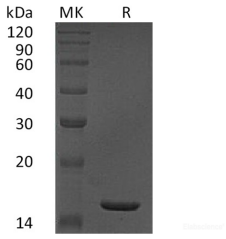
| **Purity** | > 95 % as determined by reducing SDS-PAGE. |
| **Endotoxin** | < 0.01 EU per μg of the protein as determined by the LAL method. |
| **Storage** | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months. |
| **Shipping** | This product is provided as lyophilized powder which is shipped with ice packs. |
| **Formulation** | Lyophilized from a 0.2 μm filtered solution of 20mM PB, 6% Sucrose, 4% Mannitol, 0.05% Tween 80, pH 6.0.<br>Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.<br>Please refer to the specific buffer i |
| **Reconstitution** | Please refer to the printed manual for detailed information. |

## Data




> 95 % as determined by reducing SDS-PAGE.

## Background

TNFα is a homotrimer with a subunit molecular mass of 17 kD cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It plays a major role in growth regulation; differentiation; inflammation; viral replication; tumorigenesis; autoimmune diseases and in viral; bacterial; fungal; and parasitic infections. Besides inducing hemorrhagic necrosis of tumors; TNF was found to be

involved in tumorigenesis; tumor metastasis; viral replication; septic shock; fever; inflammation; and autoimmune diseases including Crohn's disease; and rheumatoid arthritis as well as graft-versus-host disease.