

## Recombinant Human TNF- $\alpha$ Protein(Gst Tag)

Catalog Number: GPEH0596

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

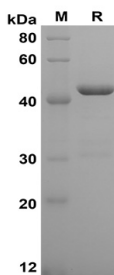
### Description

|               |                                                                                 |
|---------------|---------------------------------------------------------------------------------|
| Species       | Human                                                                           |
| Source        | E.coli-derived Human TNF- $\alpha$ protein Val77-Leu233, with an N-terminal Gst |
| Calculated MW | 43 kDa                                                                          |
| Observed MW   | 45 kDa                                                                          |
| Accession     | P01375                                                                          |
| Bio-activity  | Not validated for activity                                                      |

### Properties

|                |                                                                                                                                                                                                                                        |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Purity         | > 90% as determined by reducing SDS-PAGE.                                                                                                                                                                                              |
| Endotoxin      | < 10 EU/mg 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 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months. |
| Shipping       | This product is provided as lyophilized powder which is shipped with ice packs.                                                                                                                                                        |
| Formulation    | Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with 5% Trehalose and 5% Mannitol.                                                                                                                                             |
| Reconstitution | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.                                                                                               |

### Data



SDS-PAGE analysis of Human TNF- $\alpha$  proteins, 2  $\mu$ g/lane of  
Recombinant Human TNF- $\alpha$  proteins was resolved with  
SDS-PAGE under reducing conditions, showing bands at 45  
KD

### Background

Tumor necrosis factor alpha (TNF-alpha), also known as TNF, TNFA or TNFSF2, is the prototypic cytokine of the TNF superfamily, and is a multifunctional molecule involved in the regulation of a wide spectrum of biological processes including cell proliferation, differentiation, apoptosis, lipid metabolism, and coagulation. Two receptors, TNF-R1 (TNF receptor type 1, CD120a, p55/60) and TNF-R2 (TNF receptor type 2, CD120b, p75/80), bind to TNF-alpha. TNF-alpha protein is produced mainly by macrophages, and large amounts of this cytokine are released in response to lipopolysaccharide, other bacterial products, and Interleukin-1 (IL-1). TNF-alpha is involved in fighting against the tumorigenesis, thus, is regarded as a molecular insight in cancer treatment.

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