

## Recombinant Human TNF protein, His-tagged

**Cat. No.** TNF-243H    **Lot. No.** (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human TNF protein, fused to His-tag at N-terminus, was expressed in Escherichia coli.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>ProteinLength</b>	164
<b>Description</b>	<p>Tumor necrosis factor alpha (TNF-<math>\alpha</math>), also called cachectin, is the best-know member of the TNF-family, which can cause cell death. This protein is produced by neutrophils, activated lymphocytes, macrophages, NK cells, LAK cells, astrocytes endothelial cells, smooth muscle cells and some transformed cells. TNF-<math>\alpha</math> occurs as a secreted, soluble form and as a membrane-anchored form, both of which are biologically active. The naturally-occurring form of TNF-<math>\alpha</math> is glycosylated, but non-glycosylated recombinant TNF-<math>\alpha</math> has comparable biological activity. The biologically active native form of TNF-<math>\alpha</math> is reportedly a trimer. Human and murine TNF-<math>\alpha</math> show approximately 79 % homology at the amino acid level and cross-reactivity between the two species. Two types of receptors for TNF-<math>\alpha</math> have been described and virtually all cell types studied show the presence of one or both of these receptor types.</p>
<b>Form</b>	Lyophilized from a 0.2 $\mu$ m filtered concentrated solution in PBS, pH 7.0.
<b>Bio-activity</b>	Fully biologically active when compared to standard. The ED50 as determined by a

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

cytotoxicity assay using murine L929 cells is less than 0.05 ng/ml, corresponding to a specific activity of  $> 2.0 \times 10^7$  IU/mg in the presence of actinomycin D.

**Molecular Mass**

Approximately 18.3 kDa, a single, non-glycosylated polypeptide chain containing 164 amino acids with Met and 6 × His at N-terminus.

**AA Sequence**

MHHHHHHVHRSSSRTPSDKPVAVHVVANPQAEGQLQWLNRANALLANGVELRDNQ  
LVVPSEGLYLIYSQVLFKGGQCPSTHVLLTHTISRIVSYQTKVNLLSAIKSPCQRETP  
EGAEAKPWYEPIYLGGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIIAL

**Endotoxin**

Less than 1 EU/μg of rHuTNF-α/TNFSF2, His as determined by LAL method.

**Purity**

>97% by SDS-PAGE and HPLC analysis.

**Storage**

Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.

**Reconstitution**

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at  $\leq -20$  centigrade. Further dilutions should be made in appropriate buffered solutions.

## GENE INFORMATION

**Gene Name**

TNF

**Official Symbol**

TNF

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

**Synonyms** TNF; tumor necrosis factor; TNFA, tumor necrosis factor (TNF superfamily, member 2); DIF; TNF superfamily; member 2; TNF alpha; TNFSF2; TNF-a; cachectin; APC1 protein; TNF, monocyte-derived; TNF, macrophage-derived; TNF superfamily, member 2; tumor necrosis factor alpha; tumor necrosis factor-alpha; tumor necrosis factor ligand superfamily member 2; TNFA; TNF-alpha;

**Gene ID** 7124

**mRNA Refseq** NM\_000594

**Protein Refseq** NP\_000585

**MIM** 191160

**UniProt ID** P01375

**SDS-PAGE of TNF-243H**



 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA