

# Active Recombinant Human TNF Protein (164 aa), His-tagged

Cat. No. TNF-306T Lot. No. (See product label)

## SPECIFICATION

**Product Overview** Recombinant human Tumor Necrosis Factor-Alpha (rhTNF-alpha) produced in E. coli is a non-glycosylated polypeptide chain of 164 amino acids. A fully biologically active molecule, rhTNF-alpha has a molecular mass of 18.3kDa analyzed by reducing SDS-PAGE and is obtained by proprietary refolding and chromatographic techniques.

**Species** Human

**Source** E.coli

**ProteinLength** 164

**Description** Tumor Necrosis Factor-Alpha (TNF-alpha) plays a major role in growth regulation, differentiation, inflammation, viral replication, tumorigenesis, and autoimmune diseases. Besides inducing hemorrhagic necrosis of tumors, TNF has been 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. TNF alpha-1a is a potent lymphoid factor that exerts cytotoxic effects on a wide range of tumor cells and certain other target cells.

**Form** Sterile Filtered White lyophilized (freeze-dried) powder.

**Bio-activity** ED50 < 0.13 ng/mL, measured in a cytotoxicity assay using L-929 mouse fibrosarcoma cells in the presence of the metabolic inhibitor actinomycin D, corresponding to a specific activity of >7.69 6units/mg.

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<b>Molecular Mass</b>	18.3kDa, observed by reducing SDS-PAGE.
<b>AA Sequence</b>	MHHHHHHVRRSSSRTPSDKPVAVHVVANPQAEGQLQWLNRRANALLANGVELRDNQ LVVPSEGLYLIYSQVLFKGGQCPSTHVLLTHTISRIAVSYQTKVNLLSAIKSPCQRETP EGAEAKPWYEPIYLGGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGIIAL
<b>Endotoxin</b>	< 1 EU/μg, determined by LAL method.
<b>Purity</b>	> 95% by SDS-PAGE analysis.
<b>Storage</b>	Lyophilized recombinant human Tumor Necrosis Factor-Alpha (rhTNF-alpha) remains stable up to 12 months at -80 centigrade from date of receipt. Upon reconstitution, rhTNF-alpha should be stable up to 4 weeks at 4 centigrade or up to 6 months at -20 centigrade.
<b>Storage Buffer</b>	Lyophilized after extensive dialysis against PBS.
<b>Reconstitution</b>	Reconstituted in ddH <sub>2</sub> O at 100 μg/mL.

## GENE INFORMATION

<b>Gene Name</b>	TNF tumor necrosis factor [ <i>Homo sapiens</i> ]
<b>Official Symbol</b>	TNF
<b>Synonyms</b>	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;

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Gene ID	7124
mRNA Refseq	NM_000594
Protein Refseq	NP_000585
MIM	191160
UniProt ID	P01375

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