



## TNF-alpha Recombinant Protein

CATALOG NUMBER: 40-115

### Specifications

<b>SPECIES:</b>	Human
<b>SOURCE SPECIES:</b>	E. coli
<b>SEQUENCE:</b>	VRSSSRTPSD KPVAVHVANP QAEGQLQWLN RRANALLANG VELRDNQLVV PSEGLYLIYS QVLFKGQGCP STHVLLTHTI SRIAVSYQTK VNLLSAIKSP CQRETPEGAE AKPWYEPIYL GGVFQLEKGD RLSAEINRPD YLDFAESGQV YFGIIL
<b>TESTED APPLICATIONS:</b>	
<b>BIOLOGICAL ACTIVITY:</b>	The ED50 was determined by the cytotoxicity of murine L929 cells in the presence of Actinomycin D is $\leq 0.05$ ng/mL, corresponding to a specific activity of $\geq 2 \times 10^7$ units/mg.

### Properties

<b>PURITY:</b>	Greater than 98% by SDS-PAGE gel and HPLC analyses.
	Endotoxin level is less than 0.1 ng per ug (1EU/ug).
<b>PHYSICAL STATE:</b>	Lyophilized
<b>STORAGE CONDITIONS:</b>	The lyophilized TNF-alpha recombinant protein is stable for at least 2 years from date of receipt at -20°C. Reconstituted TNF-alpha is stable for at least 3 months when stored in working aliquots with a carrier protein at -20°C. As with any protein, exposing TNF-alpha recombinant protein to repeated freeze / thaw cycles is not recommended. When working with proteins care should be taken to keep recombinant protein at a cool and stable temperature.

### Additional Info

<b>ALTERNATE NAMES:</b>	DIF, TNFA, TNFSF2, TNF-alpha, Tumor necrosis factor, Cachectin, TNF-a
<b>ACCESSION NO.:</b>	NP_000585.2
<b>PROTEIN GI NO.:</b>	25952111

### Background

TNF- $\alpha$  is a pleiotrophic pro-inflammatory cytokine secreted by various cells including adipocytes, activated monocytes, macrophages, B cells, T cells and fibroblasts. It belongs to the TNF family of ligands and signals through two receptors, TNFR1 and TNFR2. TNF- $\alpha$  is cytotoxic to a wide variety of tumor cells and is an essential factor in mediating the immune response against bacterial infections. TNF- $\alpha$  also plays a role in the induction of septic shock, auto immune diseases, rheumatoid arthritis, inflammation, and diabetes. Recombinant human TNF- $\alpha$  is a soluble 157 amino acid protein (17.4 kDa) which corresponds to C-terminal extracellular domain of the full length transmembrane protein.

**FOR RESEARCH USE ONLY**