**TNF-alpha, 77-233 aa**

**Cat. No. TNF0501**

**Human, Recombinant, *E.coli***

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**Full name:** Tumor necrosis factor alpha  
**NCBI Accession No.:** NP_000585

**Synonyms:** DIF, TNF-alpha, TNFA, TNFSF2

**Description:** Tumor necrosis factor alpha (TNF-α), also called cachectin, consists of 157 amino acids. TNF-α is a 17.5 kDa factor produced by neutrophils, CD4+ T cells, macrophage, NK cells, LAK cells, astrocytes endothelial cells, and smooth muscle cells. TNF-α is cytolytic and plays an important role in immune regulation including hemorrhagic tumor necrosis/cytotoxicity and inflammation, and in regulation of antiviral and immune proliferative and activation responses. The active form of this protein is a trimer. Recombinant human TNF-α was expressed in *E. coli* and purified by using conventional chromatography techniques. Additional amino acid, methionine, was attached at N-terminus of the protein.

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**Form:** Liquid. In PBS buffer (pH 7.4)

**Molecular Weight:** 17.5 kDa (158 aa), confirmed by MALDI-TOF

**Purity:** > 95% by SDS-PAGE

**Concentration:** 1 mg/ml (determined by Bradford assay)

**Endotoxin Level:** < 1.0 EU per 1 μg of protein (determined by LAL method)

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**Biological activity:** Measured in a cytotoxicity assay using L-929 mouse fibrosarcoma cells in the presence of the metabolic inhibitor actinomycin D. The ED50 for this effect is ≤ 0.2 ng/ml.

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**Sequences of amino acids:**

MVRSSRTPS DKPVAHVAN PQAEQGLQWL NRRANALLAN GVEILRDNQVL VPSEGLYLIY SQVLFKQGC PSTHIHLLTHT ISRIAVSYQT KVNLLSAIKS PCQRETPEGA EAXPWYEPIY LGGVFQLEKG DLRLASEINRP DYLFDESGQ VYFGIINAL

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**General references:**  

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**Storage:** Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles

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**Warning:** For research use only. This product is not intended or approved for human, diagnostics or veterinary use.