

# Recombinant Human Tumor Necrosis Factor alpha-1a

Cat. No. TNF-24H Lot. No. (See product label)

## SPECIFICATION

<b>Product Overview</b>	Tumor necrosis factor alpha-1a or TNFalpha-1a is a non-glycosylated cytokine produced from <i>E. coli</i> using rDNA technology. The protein consists of three identical polypeptide chains of 158 amino acids combined to form a compact, bell-shaped homotrimer. The individual subunits have a relative molecular mass each of 17.484 kDa.
<b>Species</b>	Human
<b>Source</b>	<i>E. coli</i>
<b>Description</b>	TNF-alpha is a homotrimer with a subunit molecular mass of 17 kDa and that it plays a major role in growth regulation, differentiation, inflammation, viral replication, tumorigenesis, and autoimmune diseases; and in viral, bacterial, fungal, and parasitic infections. Besides inducing hemorrhagic necrosis of tumors, TNF was 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.
<b>Purity</b>	>95% by SDS-PAGE and SEC-HPLC .
<b>Formulation</b>	Lyophilized from a 0.2 µ filtered solution in PBS.
<b>Specific Activity</b>	The ED50 as determined by the cytolysis of murine L929 cells in the presence of Actinomycin D is less than 0.03ng/ml, corresponding to a Specific Activity of 3.0 x 10 <sup>7</sup> IU/mg.

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<b>Endotoxin</b>	Less than 0.01ng/g (0.01IEU/g) determined by LAL test.
<b>Reconstitution</b>	It is recommended to reconstitute the lyophilized TNF alpha-1a in sterile 18MΩ-cm H <sub>2</sub> O not less than 100g/ml, which can then be further diluted to other aqueous solutions.
<b>Storagee</b>	Lyophilized samples are stable for up to twelve months from date of receipt at -20°C to -70°C. Aliquot to avoid repeated freeze-thaw cycles.

## GENE INFORMATION

<b>Gene Name</b>	TNF
<b>Synonyms</b>	tumor necrosis factor (TNF superfamily, member 2); DIF; TNFA; TNFSF2; TNF-alpha; Cachectin; OTTHUMP00000037669; TNF-a; APC1 protein; TNF superfamily, member 2; TNF, macrophage-derived; TNF, monocyte-derived; Tumor necrosis factor ligand superfamily member 2; Tumor necrosis factor precursor; tumor necrosis factor; tumor necrosis factor (cachectin); tumor necrosis factor alpha; tumor necrosis factor, alpha (cachectin); TNF
<b>Gene ID</b>	7124
<b>mRNA Refseq</b>	<a href="#">NM_000594.2</a>
<b>Protein Refseq</b>	<a href="#">NP_000585.2</a>
<b>MIM</b>	191160
<b>UniProt ID</b>	P01375
<b>Chromosome</b>	6p21.3

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**Location****Function**

Cytokine activity, Identical protein binding, Tumor necrosis factor receptor binding

**PDBrendering based  
on 1TNF.**



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