

Recombinant Human Tumor Necrosis Factor alpha-1a

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

SPECIFICATION

Product Overview	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.
Species	Human
Source	E.coli
Description	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.
Purity	>95% by SDS-PAGE and SEC-HPLC .
Formulation	Lyophilized from a 0.2 µ filtered solution in PBS.
Specific Activity	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 3.0×10^7 IU/mg.

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Endotoxin	Less than 0.01ng/g (0.01IEU/g) determined by LAL test.
Reconstitution	It is recommended to reconstitute the lyophilized TNF alpha-1a in sterile 18MΩ-cm H ₂ O not less than 100g/ml, which can then be further diluted to other aqueous solutions.
Storage	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

Gene Name	TNF
Synonyms	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
Gene ID	7124
mRNA Refseq	NM_000594.2
Protein Refseq	NP_000585.2
MIM	191160
UniProt ID	P01375
Chromosome	6p21.3

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Location**Function**

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

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