

Recombinant Human Tumor Necrosis Factor

Cat. No. TNF-194H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human TNF- α was expressed in <i>E.coli</i> and purified by using conventional chromatography techniques. Additional amino acid, methionine, was attached at N-terminus of the protein. MW=17.5kDa (158 aa).
Species	Human
Source	E.coli
Description	Tumor necrosis factor alpha (TNF- α), also called cachectin, consists of 157 amino acids. TNF- α is a 17.5kD 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.
Amino Acids Sequences	MVRSSSRTPS DKPVAHVVAN PQAEGQLQWL NRRANALLAN GVELRDNQLV VPSEGLYLIY SQVLFGKGQC PSTHVLLTHT ISRIAVSYQT KVNLLSAIKS PCQRETPEGA EAKPWYEPIY LGGVFQLEKG DRLSAEINRP DYLDFAESGQ VYFGIIAL
Purity	> 95% by SDS-PAGE.
Concentration	1mg/ml (determined by Bradford assay).

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Form	Liquid. In PBS buffer (pH7.4).
Endotoxin Level	< 1.0EU per 1 µg of protein (determined by LAL method).
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.

GENE INFORMATION

Gene Name	TNF tumor necrosis factor (TNF superfamily, member 2) [Homo sapiens]
Synonyms	TNF; tumor necrosis factor (TNF superfamily, member 2); DIF; TNFA; TNFSF2; TNF-alpha; Tumor necrosis factor; Tumor necrosis factor ligand; TNF-a; Cachectin; Tumor necrosis factor, membrane form; Tumor necrosis factor, soluble form; superfamily member 2; OTTHUMP00000029281; OTTHUMP00000037669; cachectin; APC1 protein; TNF superfamily, member 2; TNF, macrophage-derived; TNF, monocyte-derived; Tumor necrosis factor ligand superfamily member 2; tumor necrosis factor (TNF superfamily, member 2); tumor necrosis factor alpha
Gene ID	7124
mRNA Refseq	NM_000594
Protein Refseq	NP_000585
MIM	191160
UniProt ID	P01375
Chromosome Location	6p21.3

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Pathway

receptor interaction; Fc epsilon RI signaling pathway; Graft-versus-host disease; Hypertrophic cardiomyopathy (HCM); Hematopoietic cell lineage; MAPK signaling pathway; Natural killer cell mediated cytotoxicity; RIG-I-like receptor signaling pathway; Systemic lupus erythematosus; T cell receptor signaling pathway; TGF-beta signaling pathway; Toll-like receptor signaling pathway; Type I diabetes mellitus; Type II diabetes mellitus; Apoptosis; Hematopoietic cell lineage

Function

cytokine activity; identical protein binding; tumor necrosis factor receptor binding

PDB rendering based on 1TNF.

