

Recombinant Mouse Tumor Necrosis Factor

Cat. No. Tnf-124M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant mouse tumor necrosis factor is produced in <i>E.coli</i> .
Species	Mouse
Source	E.coli
Description	Tumor necrosis factor alpha (TNF-α) is produced by neutrophils, activated lymphocytes, macrophages, NK cells, LAK cells, astrocytes endothelial cells, smooth muscle cells and some transformed cells. Mouse TNF-α occurs as a membrane-anchored form. The naturally-occurring form of TNF-α is glycosylated, but non-glycosylated recombinant TNF-α has comparable biological activity. The biologically active native form of TNF-α is reportedly a trimer. Human and murine TNF-α show approximately 79% homology at the amino acid level and crossreactivity between the two species.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Molecular Weight	Approximately 17.3 kDa. The recombinant murine TNF-alpha is a soluble 157 amino acid protein which corresponds to C-terminal extracellular domain of the full length transmembrane protein.
Formulation	Lyophilized from a 0.2μm filtered solution in PBS, pH 7.2.
Purity	>97% by SDS-PAGE and HPLC analyses.

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Endotoxin	Less than 1EU/μg of rMuTNF-α as determined by LAL method.
Biological Activity	Fully biologically active when compared to standard. The ED50 as determined by the cytolysis of murine L929 cells in the presence of actinomycin D is < 0.1 ng/ml, corresponding to a specific activity of > 1×10 ⁷ units/mg.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at <-20°C. Further dilutions should be made in appropriate buffered solutions.
Storage	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

GENE INFORMATION

Gene Name	Tnf tumor necrosis factor [<i>Mus musculus</i>]
Synonyms	Tnf; tumor necrosis factor; DIF; Tnfa; TNFSF2; Tnfsf1a; TNFalpha; MGC151434; TNF-alpha; TNF alpha; tumor necrosis factor alpha; tumor necrosis factor-alpha
Gene ID	21926
mRNA Refseq	NM_013693
Protein Refseq	NP_038721

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UniProt ID	P06804
Chromosome Location	19.06 cM
Pathway	Adipocytokine signaling pathway; Allograft rejection; Alzheimer"s disease; Amyotrophic lateral sclerosis (ALS); Apoptosis; Asthma; Cytokine-cytokine receptor interaction; Fc epsilon RI signaling pathway; Graft-versus-host disease; Hematopoietic cell lineage; Hypertrophic cardiomyopathy (HCM); 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
Function	cytokine activity; tumor necrosis factor receptor binding

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