

Recombinant Porcine Tumor Necrosis Factor

Cat. No. TNF-5525P **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant porcineTNF is produced in E. coli and purified via sequential chromatography.
Species	Porcine
Source	E.coli
Description	Tumor necrosisfactor (TNF, cachexin or cachectin formerly known as tumor necrosisfactor-alpha or TNF-α) is a cytokine involved in systemic inflammation and isa member of a group of cytokines that stimulate the acute phase reaction. Itis produced chiefly by activated macrophages, although it can be produced by othercell types as well. The primary role of TNF is in the regulation of immunecells. TNF, being an endogenous pyrogen, is able to induce fever, to induceapoptotic cell death, to induce sepsis (through IL1 & IL6 production), to induce cachexia, induce inflammation, and to inhibit tumorigenesis and viralreplication.
Form	Lyophilized, carrierfree
Molecular Weight	17.1 kDa
Purity	>95% asdetermined by SDS-PAGE analysis
Endotoxin	<0.1 ng/g
Biological Activity	ED50 range =0.001-0.015 ng/mL, determined by the dose dependent cytotoxicity of

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	porcinePK15 cells. Optimal concentration for individual application should be determined by a dose response assay.
Reconstitution	We recommend that the vial be briefly centrifuged prior to opening to bring the contents to the bottom. Lyophilized porcine TNF-alpha should be reconstituted in sterile, deionized H ₂ O to 0.1-1.0 mg/mL to regain full activity. These stock solutions should be apportioned into working aliquots and stored below -20°C. Further dilutions should be made in low endotoxin medium or buffered solution with heat inactivated FCS or tissue culture grade BSA.
Storage	Lyophilized porcine TNF-alpha should be stored at 2-8°C, preferably desiccated. Store reconstituted porcine TNF-alpha below -20°C (not in a frost-free freezer). Keep freeze-thaw cycles to a minimum.
Official Symbol	TNF
GENE INFORMATION	
Gene Name	TNF tumor necrosis factor [Susscrofa]
Synonyms	TNF; tumor necrosis factor; TNFa; TNF-a; TNF-alpha; tumor-necrosis factor; cachectin; tumor necrosis factor alpha; tumor necrosis factor (TNF superfamily, member 2); tumor necrosis factor ligand superfamily member 2
Gene ID	397086
mRNA Refseq	NM_214022
Protein Refseq	NP_999187
UniProt ID	P23563

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Chromosome Location	7p11-q11; 7
Pathway	Adipocytokinesignaling pathway; Cytokine-cytokine receptor interaction; Death ReceptorSignalling; Extrinsic Pathway for Apoptosis; Fc epsilon RI signaling pathway;Graft-versus-host disease; Hematopoietic cell lineage; Leishmaniasis; MAPKsignaling pathway; Natural killer cell mediated cytotoxicity; Osteoclastdifferentiation; RIG-I-like receptor signaling pathway; Systemic lupuserythematosus; TGF-beta signaling pathway; Type II diabetes mellitus
PDB rendering basedon 1TNF.	

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