

**DATASHEET**  
Version 20181206**TNF- $\alpha$ , Porcine****Cat. No.:** Z03338-50**Size:** 50.0 ug**Synonyms:** TNF-alpha, Tumornecrosis factor ligand super family member 2, TNF-a, Cachectin, DIF, TNFA, TNFSF 2**Description:**

Tumor Necrosis Factor-Alpha (TNF-alpha) plays a major role in growth regulation, differentiation, inflammation, viral replication, tumorigenesis, and autoimmune disease. Besides inducing hemorrhagic necrosis of tumors, TNF has been found to be involved in tumorigenesis, tumor metastasis, viral replication, septic shock, fever, inflammation, and autoimmune disease including Crohn's disease, rheumatoid arthritis and graft-versus-host disease. TNF alpha-1a is a potent lymphoid factor that exerts cytotoxic effects on a wide range of tumor cells and certain other target cells.

Recombinant Porcine Tumor Necrosis Factor-alpha (TNF- $\alpha$ ) produced in *E. coli* is a single non-glycosylated polypeptide chain containing 155 amino acids. A fully biologically active molecule, rpTNF- $\alpha$  has a molecular mass of 17.2 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

**Amino Acid Sequence:**

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00001 RSSSQTSDDP VAVVAVNKA EGQLQWQSGY ANALLANGVK
00041 LKDNQLVVPT DGLYLIYSQV LFRGQGCPT NVFLTHTISR
00081 IAVSYQTKVN LLSAIKSPCQ RETPEGAEAK PWYEPIYLG
00121 VFQLEKDDRL SAEINLPDYL DFAESGQVYF GIIAL
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**Source:** *E. coli***Biological Activity:** ED<sub>50</sub> < 20 ng/ml, measured in a cytotoxicity assay using L-929 mouse fibrosarcoma cells in the presence of the metabolic inhibitor actinomycin D, corresponding to a specific activity of > 5 x 10<sup>4</sup> units/mg.**Molecular Weight:** 17.2 kDa, observed by reducing SDS-PAGE.**Formulation:** Lyophilized after extensive dialysis against PBS.**Reconstitution:** Reconstituted in ddH<sub>2</sub>O or PBS at 100  $\mu$ g/ml.**Purity:** > 98% as analyzed by SDS-PAGE&HPLC.**Endotoxin Level:** < 0.2 EU/ $\mu$ g, determined by LAL method.**Storage:** Lyophilized recombinant Porcine Tumor Necrosis Factor-alpha (rpTNF- $\alpha$ ) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rpTNF- $\alpha$  should be stable up to 1 week at 4°C or up to 3 months at -20°C.