

Rev04  
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**DATASHEET**

# TNF- $\alpha$ , Rat

Cat. No.: Z02999

## Product Introduction

<b>Species</b>	Rat
<b>Protein Construction</b>	Expressed with an N-terminal Met. <b>TNF-<math>\alpha</math> (Leu80-Leu235)</b> Accession # P06804
<b>Purity</b>	> 95% as analyzed by SDS-PAGE > 95% as analyzed by HPLC
<b>Endotoxin Level</b>	< 0.2 EU/ $\mu$ g of protein by gel clotting method
<b>Biological Activity</b>	ED <sub>50</sub> < 50.0 pg/ml, measured in a cytotoxicity assay using mouse L-929 cells in the presence of actinomycin D, corresponding to a specific activity of > 2.0 $\times$ 10 <sup>7</sup> units/mg.
<b>Expression System</b>	P. pastoris
<b>Apparent Molecular Weight</b>	~17.4 kDa, on SDS-PAGE under reducing conditions.
<b>Formulation</b>	Lyophilized after extensive dialysis against PBS.
<b>Reconstitution</b>	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH <sub>2</sub> O up to 100 $\mu$ g/ml.
<b>Storage &amp; Stability</b>	Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

## Background

**Target Background :** 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.

**Synonyms :** TNF-alpha; Tumor necrosis factor ligand superfamily member 2; TNF-a; Cachectin; DIF; TNFA; TNFSF2

For laboratory research use only. Direct human use, including taking orally and injection and clinical use are forbidden.