

## Recombinant Human TNF $\alpha$

Catalog#:P00029 Derived from *E.coli*

<b>DESCRIPTION</b>	<p>Recombinant Human Tumor Necrosis Factor Alpha is produced by our E.coli expression system and the target gene encoding Val77-Leu233 is expressed.</p> <p>Accession #:P01375</p> <p>Known as: Tumor Necrosis Factor; Cachectin; TNF-Alpha; Tumor Necrosis Factor Ligand Superfamily Member 2; TNF-a; TNF; TNFA; TNFSF2</p>
<b>FORMULATION</b>	Lyophilized from a 0.2 $\mu$ m filtered solution of 20mM PB, 150mM NaCl, pH 7.0.
<b>SHIPPING</b>	<p>The product is shipped at ambient temperature.</p> <p>Upon receipt, store it immediately at the temperature listed below.</p>
<b>STORAGE</b>	<p>Lyophilized protein should be stored at &lt; -20°C, though stable at room temperature for 3 weeks.</p> <p>Reconstituted protein solution can be stored at 4-7°C for 2-7 days.</p> <p>Aliquots of reconstituted samples are stable at &lt; -20°C for 3 months.</p>
<b>RECONSTITUTION</b>	<p>Always centrifuge tubes before opening. Do not mix by vortex or pipetting.</p> <p>It is not recommended to reconstitute to a concentration less than 100<math>\mu</math>g/ml.</p> <p>Dissolve the lyophilized protein in distilled water.</p> <p>Please aliquot the reconstituted solution to minimize freeze-thaw cycles.</p>
<b>QUALITY CONTROL</b>	<p>Mol Mass: 17.3kDa AP Mol Mass: 16kDa, reducing conditions.</p> <p>Purity: Greater than 95% as determined by reducing SDS-PAGE.</p> <p>Endotoxin: Less than 0.1 ng/<math>\mu</math>g (1 EU/<math>\mu</math>g) as determined by LAL test.</p> <p>Bioactivity: Measured in a cytotoxicity assay using L 929 mouse fibroblast cells in the presence of the metabolic inhibitor actinomycin D.The ED50 for this effect is 10-50 pg/ml.</p>
<b>BACKGROUND</b>	<p>TNF<math>\alpha</math> is a homotrimer with a subunit molecular mass of 17 kD cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFR2. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It plays a major role in growth regulation, differentiation, inflammation, viral replication, tumorigenesis, autoimmune diseases and in viral, bacterial, fungal, and parasitic infections. Besides inducing hemorrhagic necrosis of tumors, TNF was found to be involved in tumorigenesis, tumor metastasis, viral replication, septic shock, fever, inflammation, and autoimmune diseases including Crohn's disease, and rheumatoid arthritis as well as graft-versus-host disease.</p>

**SDS-PAGE**

