**Product Information**

**HumanKine™ Tumor Necrosis Factor α, human recombinant, expressed in HEK 293 cells**

Catalog Number H8916  
Storage Temperature –20 °C

**Synonyms:** TNF-α, cachectin

**Product Description**  
HumanKine™ TNF-α is expressed in human 293 cells and has been shown to be predominantly a glycosylated, non-covalently linked homotrimer with a molecular mass of 51 kDa (gel filtration). Production in human 293 cells offers authentic glycosylation. Glycosylation contributes to stability in cell growth media and other applications.

Tumor Necrosis Factor-α (TNF-α) is a protein secreted by lipopolysaccharide-stimulated macrophages and causes tumor necrosis *in vivo* when injected into tumor-bearing mice. TNF-α is believed to mediate pathogenic shock and tissue injury associated with endotoxemia.  

TNF-α is closely related to the 25 kDa protein Tumor Necrosis Factor-β (lymphotoxin), sharing the same receptors and cellular actions. TNF-α causes cytolysis or cytoplasia of certain transformed cells, being synergistic with γ-interferon in its cytoxicity. Although it has little effect on many cultured normal human cells, TNF-α appears to be directly toxic to vascular endothelial cells.

This product is lyophilized from a PBS solution.

**ED<sub>50</sub>:** ≤1.00 ng/mL

The specific activity was determined by the dose-dependent cytototoxicity of the TNF-α sensitive cell line L-929 in the presence of actinomycin D.

**Purity:** ≥95%

**Endotoxin level:** ≤1 EU/μg

**Precautions and Disclaimer**  
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

**Preparation Instructions**  
Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein in sterile PBS containing 0.1% endotoxin-free recombinant human serum albumin.

**Storage/Stability**  
Store the product at –20 °C. The lyophilized product remains active for one year at –20 °C.

Upon reconstitution, the cytokine can be stored at 2–8 °C for short term only, or at –20 °C to –80 °C in aliquots for long term. Avoid repeated freeze-thaw cycles.

**References**


HumanKine is a trademark of HumanZyme Inc.