

Rev08
 Update: Jul,03,2026

DATASHEET

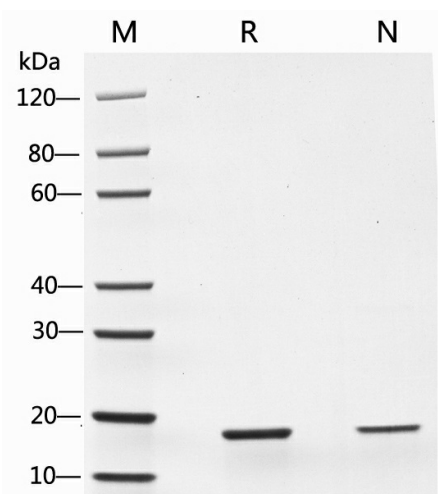
TNF- α , Human

Cat. No.: Z01001

Product Introduction

Species	Human
Protein Construction	TNF- α (Val77-Leu233) Accession # P01375
Purity	> 98% as analyzed by SDS-PAGE > 98% as analyzed by HPLC
Endotoxin Level	< 0.2 EU/ μ g of protein by gel clotting method
Biological Activity	ED ₅₀ < 30.0 pg/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 > 3.3 $\times$ 10 ⁷ U/mg.
Expression System	E. coli
Apparent Molecular Weight	~17.3 kDa, on SDS-PAGE under reducing conditions.
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	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 ₂ O or PBS up to 100 μ g/ml.
Storage & Stability	Upon receiving, this product remains stable for 6 months at -20°C or below. Upon reconstitution, the product should be stable for 1 week at 4°C or for 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.

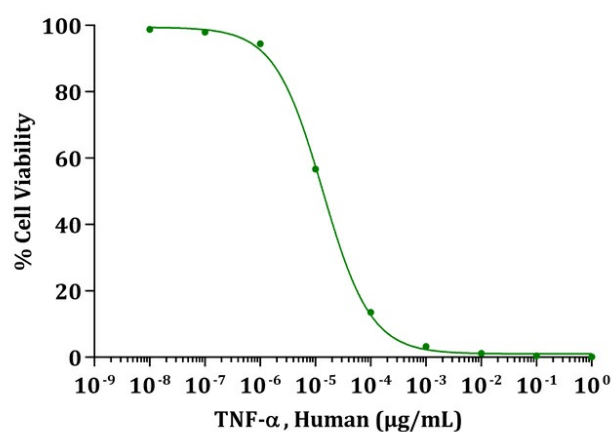
Examples



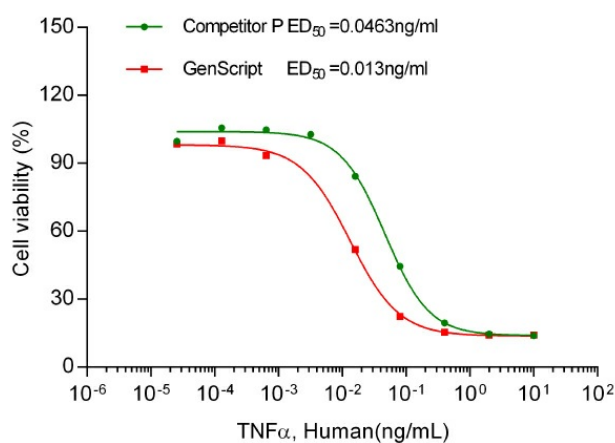
2 µg of TNF- α , Human (Cat. No. Z01001) was resolved with SDS-PAGE under reducing (R) and non-reducing (N) conditions and visualized by Coomassie Blue staining.

Biological Activity

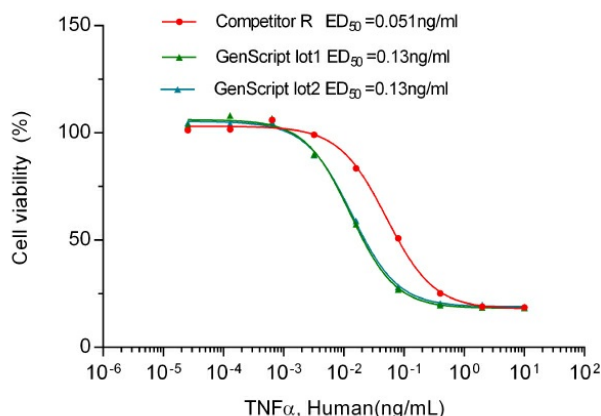
TNF- α , Human (Cat. No. Z01001) stimulates cytotoxicity of L-929 mouse fibrosarcoma cells. The ED₅₀ for this effect is typically 11-50 pg/mL.



GenScript product showed better activity compared to competitor P



GenScript product showed better activity compared to competitor R



Background

Target Background : Tumor Necrosis Factor-alpha (TNF-a) is a homotrimer with a subunit molecular mass of 17.3 kDa. Tumor Necrosis Factor-alpha(TNF-a) plays a major role in growth regulation, differentiation, inflammation, viral replication, tumorigenesis, and autoimmune diseases; and in viral, bacterial, fungal, and parasitic infections. 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 diseases including Crohn's disease, and rheumatoid arthritis as well as graft-versus-host disease.

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.

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