

TNF

Recombinant Human Tumor Necrosis Factor alpha

Catalog No.	CRT100A	Quantity:	10 µg
	CRT100B		50 µg
	CRT100C		1.0 mg

Alternate Names: TNF-alpha, TNFA, Cachetin, Cytotoxin

Description: Tumor necrosis factor alpha (TNF-alpha) is a multifunctional proinflammatory cytokine that belongs to the TNF superfamily. TNF-alpha is secreted by macrophages, monocytes, neutrophils, T cells, NK-cells following their stimulation by bacterial LPS. TNF-alpha activates signals through two receptors, TNFR1, which is expressed on most cell types, and TNFR2, which is expressed mainly on immune cells. TNF-alpha can have many functions including stimulation of phagocytosis in macrophages, chemoattraction of neutrophils, increase in insulin resistance, and inducing fever, cell proliferation, differentiation, apoptosis, lipid metabolism, and coagulation.

Gene ID: 7124

UniProt ID: P01375

Source: *E. coli*

Molecular Weight: Monomer, 17.5 kDa (158 aa)

Formulation: Lyophilized from a sterile-filtered solution in 10 mM sodium phosphate, pH 7.5.

Purity: ≥ 95% by reducing and non-reducing SDS-PAGE

Endotoxin Level: ≤1 EU/µg

Biological Activity: ED₅₀ ≤2 ng/ml, determined by cytolysis of mouse L929 cells in the presence of Actinomycin D.

Specific Activity: ≥ 5 x 10⁵ U/mg

Amino Acid Sequence: MVRSSSRTPS DKPVAHVVAN PQAEGQLQWL NRRANALLAN GVELRDNQLV
VPSEGLYLIY SQVLFGQGQC PSTHVLLTHT ISRIAVSYQT KVNLLSAIKS
PCQRETPEGA EAKPWYEPIY LGGVFQLEKG DRLSAEINRP DYLDFAESGQ VYFGIIAL

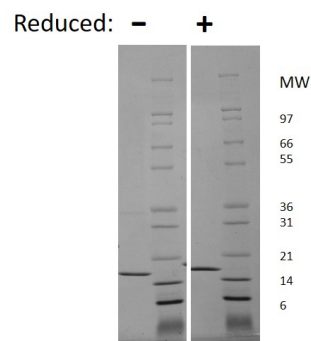
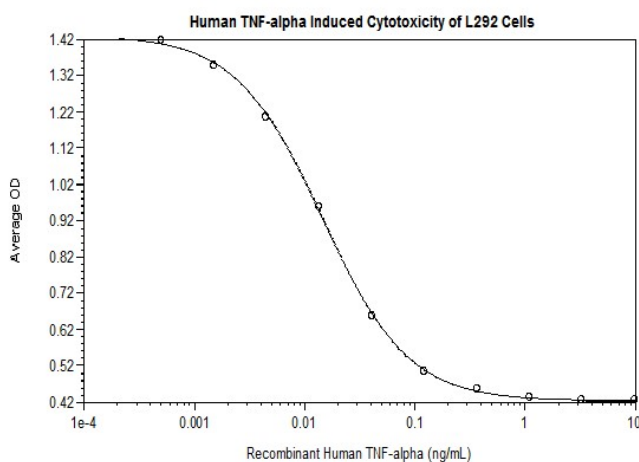
Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water to a concentration of 0.1 mg/mL. Suspend the product by gently pipetting solution down sides of vial. **DO NOT VORTEX.** Allow several minutes for complete reconstitution.



Storage & Stability:

Store as supplied at -20°C to -80°C for up to 1 year. Upon reconstitution, prepare working aliquots and store at -20°C to -80°C. It is recommended that a carrier protein such as 0.1% HSA or BSA is added for long term storage.

Avoid repeated freeze-thaw cycles.



Human TNF alpha

Figure: 1 ug in each lane (-) non-reducing conditions and (+) reducing conditions in a 4-20% Tris-Glycine gel, stained with Coomassie Blue. Human TNF alpha has a predicted MW of 17.5 kDa.

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