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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, Cachectin, TNFSF2

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, 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: ≤ 0.1 EUs/µg by kinetic LAL

Biological Activity: ED_{50} ≤2 ng/ml, determined by cytolysis of mouse L929 cells in the presence of Actinomycin D.

Specific Activity: ≥ 5 x 10^5 U/mg

Amino Acid Sequence: MVRSSSRTPS DKPVAHVVAN PQAEGQLQWL NRRANALLAN GVELRDNQLV VPSEGLYLIY SQVLFKGQGC 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.

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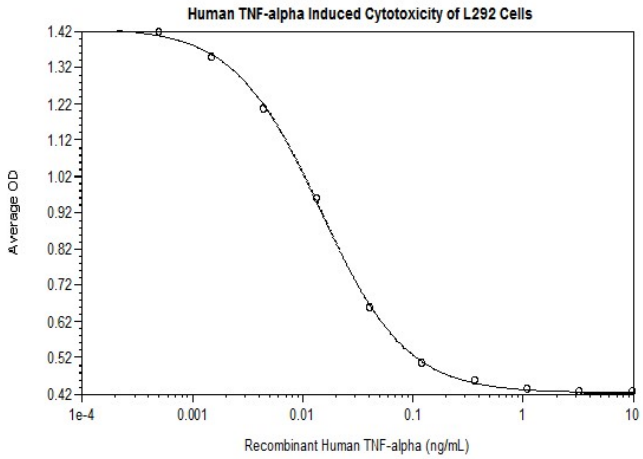
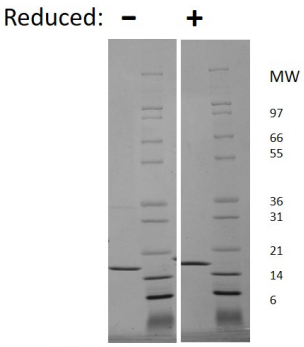
Storage & Stability: Store as supplied at -20°C to -80°C for up to 1 year. Upon reconstitution, prepare working aliquots and store at -20°C to -80°C. It is recommended that a carrier protein such as 0.1% HSA or BSA is added for long term storage.
Avoid repeated freeze-thaw cycles.





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.

NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

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