


Human TNF- α protein

Cat #: PRP1013

Size: 5 μ g/20 μ g/100 μ g/1 mg

Product Information

	Product Name: Human TNF- α protein		
REF	Catalog Number: PRP1013	LOT	Lot Number: Refer to product label
	Purity: > 95 % as determined by SDS-PAGE		
	Storage: Store at -20°C		Preparation method: <i>E. coli</i>
	Shipping: The product is shipped at ambient temperature.		

Background: Tumor necrosis factor alpha (TNF- α), also known as TNF, TNFA or TNFSF2, is the prototypic cytokine of the TNF superfamily, and is a multifunctional molecule involved in the regulation of a wide spectrum of biological processes including cell proliferation, differentiation, apoptosis, lipid metabolism, and coagulation. Two receptors, TNF-R1 (TNF receptor type 1; CD120a; p55/60) and TNF-R2 (TNF receptor type 2; CD120b; p75/80), bind to TNF- α . TNF- α protein is produced mainly by macrophages, and large amounts of this cytokine are released in response to lipopolysaccharide, other bacterial products, and Interleukin-1 (IL-1). TNF- α is involved in fighting against the tumorigenesis, thus is regarded as a molecular insight in cancer treatment.

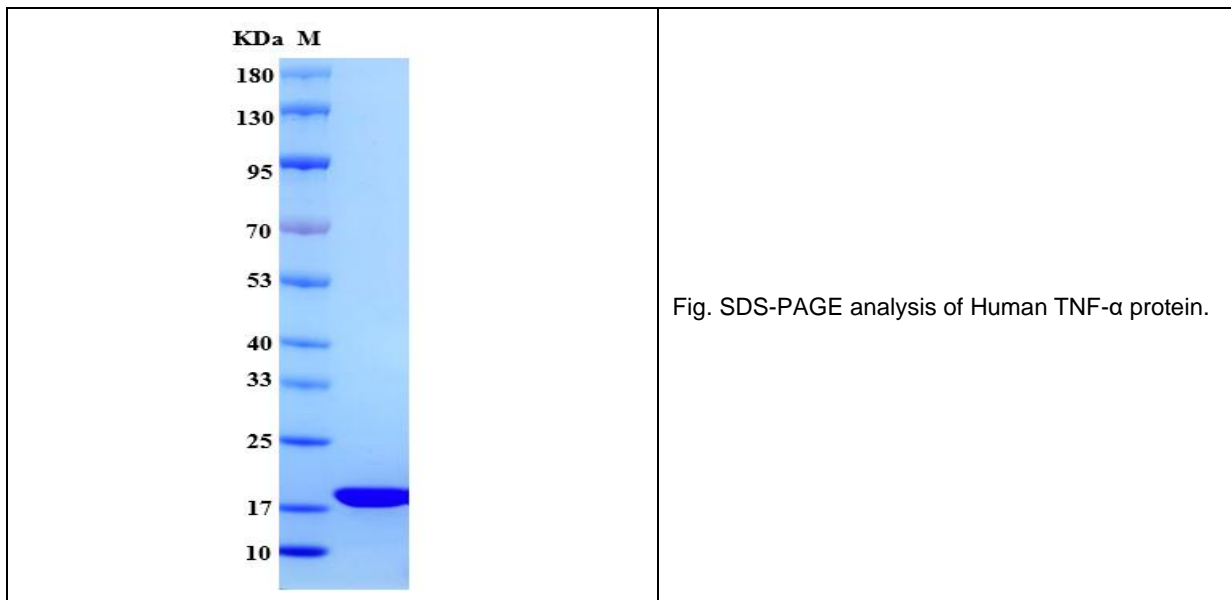
Sequence: Amino acid sequence derived from Human TNF- α soluble form (NP_000585.2) (Val 77-Leu 233) was expressed, with an initial Met at the N-terminus.

Protein length: The recombinant Human TNF- α consists of 158 amino acids and has a predicted molecular mass of 17.5 kDa.

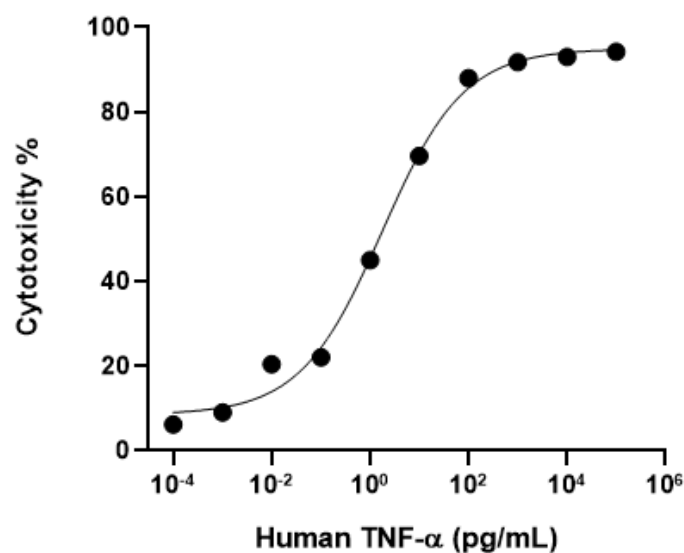
Formulation: Lyophilized from sterile 150 mM NaCl 20 mM Tris , pH 8.0.

Storage Instructions: Lyophilized Human TNF- α protein product should be stored desiccated below -20°C. Upon reconstitution, the protein should be stored at 4°C between 2-7 days and for future use below -20°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Usage notes: Always centrifuge tubes before opening. It is recommended to reconstitute the lyophilized Human TNF- α protein in sterile ddH₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.



Biological Activity: Measured in a cytotoxicity assay using L929 mouse fibrosarcoma cells in the presence of the metabolic inhibitor actinomycin D. The ED_{50} for this effect is typically 1.747 pg/mL. The specific activity of recombinant Human TNF- α is approximately $>5.7 \times 10^5$ IU/mg.



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