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## **Human TNF-alpha protein**

Cat #: PRP1013 Size: 10µg/50µg/100µg/1mg

## **Product Information**

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

**Background:** Tumor necrosis factor alpha (TNF-alpha), 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-alpha. TNF-alpha 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-alpha is involved in fighting against the tumorigenesis, thus, is regarded as a molecular insight in cancer treatment.

<u>Sequence</u>: 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.

<u>Protein length</u>: The recombinant human TNF- $\alpha$  consists of 161 amino acids and has a predicted molecular mass of 17.7 kDa which is also estimated by SDS-PAGE.

<u>Biological Activity:</u> Measured in a cytotoxicity assay using L929 mouse fibrosarcoma cells in the presence of the metabolic inhibitor actinomycin D. The ED50 for this effect is typically 25-100 pg/ml.

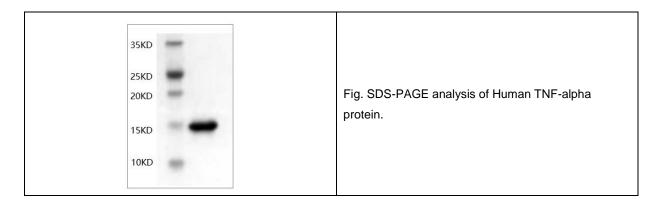
Formulation: Lyophilized from sterile 150mM NaCl, 20mM Tris, pH 8.0.

<u>Storage Instructions</u>: Lyophilized Human TNF-alpha 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-alpha



protein using the buffer we provided not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.



**Note:** The product listed herein is for research use only and is not intended for use in human or clinical diagnosis. Suggested applications of our products are not recommendations to use our products in violation of any patent or as a license. We cannot be responsible for patent infringements or other violations that may occur with the use of this product.

