TNF
Recombinant Human TNF-alpha

Catalog No.	CRH520A	**Quantity:**	10 µg
	CRH520B		50 µg
	CRH520C		1.0 mg
	CRH520D		100 µg

Alternate Names: Tumor necrosis factor, Cachectin, TNF-alpha, Tumor necrosis factor ligand superfamily member 2, TNF-a

Description: Tumor necrosis factor alpha (TNF-alpha) 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; CD12a; p55/6) and TNF-R2 (TNF receptor type 2; CD12b; p75/8), 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.

UniProt ID: P01375

Accession Number: NP_000585.2

Protein Construction: A DNA sequence encoding the human TNF-α soluble form (Val 77-Leu 233) was expressed, with an initial Met at the N-terminus.

Source: E. coli

Formulation: Lyophilized from sterile PBS, pH 7.4
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.

Molecular Weight: The recombinant human TNF-α consists of 158 amino acids and has a predicted molecular mass of 17.4 kDa.

Purity: > 95 % as determined by SDS-PAGE.

Biological Activity: 1. 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 5-50 pg/mL.
2. Labeled biotin to TNF-alpha Protein, Human, Recombinant by a certain molar ratio; Using the Octet RED System, the affinity constant (Kd) of TNF-alpha Protein, Human, Recombinant, Biotinylated bound to Humira was 0.1 nM.

Predicted N-terminal: Met

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

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Storage & Stability: Stable for up to 1 year from date of receipt at -20°C to -80°C
After reconstitution, store working aliquots at -20°C to -80°C.
Avoid repeated freeze-thaw cycles.

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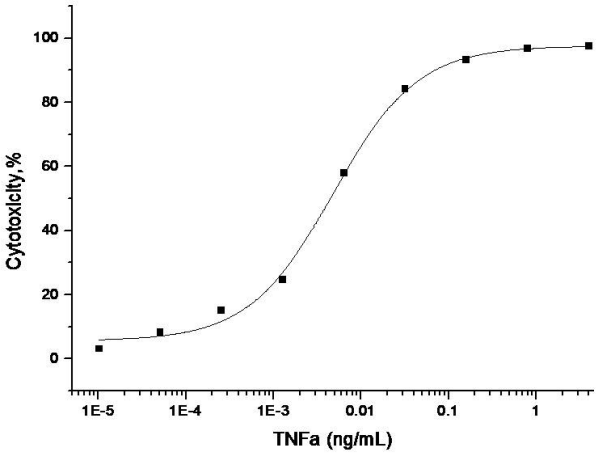

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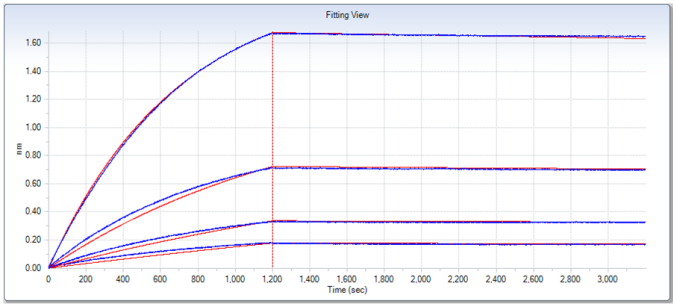

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