

## 32-1787: raTNF $\alpha$ Recombinant Protein

**Alternative Name :** Tumor necrosis factor, Cachectin, TNF- $\alpha$ , Tumor necrosis factor ligand superfamily member 2, TNF- $\alpha$ , TNF, TNFA, TNFSF2.

### Description

Source : Escherichia Coli. Tumor Necrosis Factor- $\alpha$  Rabbit Recombinant consists of three identical polypeptide chains of 158 amino acids combined to form a compact, bell-shaped homotrimer. TNF- $\alpha$  was produced in E.Coli is a non-glycosylated, polypeptide chain having a molecular mass of 17.4 kDa for the individual subunit. The TNF- $\alpha$  is purified by standard chromatographic techniques. Tumor necrosis factor is a cytokine involved in systemic inflammation and is a member of a group of cytokines that all stimulate the acute phase reaction. TNF is mainly secreted by macrophages. TNF causes apoptotic cell death, cellular proliferation, differentiation, inflammation, tumorigenesis and viral replication, TNF is also involved in lipid metabolism, and coagulation. TNF's primary role is in the regulation of immune cells. Dysregulation and, in particular, overproduction of TNF have been implicated in a variety of human diseases- autoimmune diseases, insulin resistance, and cancer.

### Product Info

**Amount :** 20  $\mu$ g  
**Purification :** Greater than 95% as determined by:(a) Analysis by RP-HPLC.(b) Analysis by SDS-PAGE.  
**Content :** TNF- $\alpha$  Rabbit was lyophilized after extensive dialysis against 20mM PB, pH7.4, 300mM NaCl.  
**Storage condition :** Lyophilized Tumor Necrosis Factor- $\alpha$  although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution TNF- $\alpha$  should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.  
**Amino Acid :** The sequence of the first five N-terminal amino acids was determined and was found to be Met-Ser-Ala-Ser-Arg.

### Application Note

It is recommended to reconstitute the lyophilized Tumor Necrosis Factor- $\alpha$  in sterile 18M $\Omega$  H<sub>2</sub>O not less than 100 $\Omega$   $\mu$ g/ml, which can then be further diluted to other aqueous solutions. The ED50 as determined by the cytolysis of murine L929 cells in the presence of Actinomycin D is less than 0.03ng/ml, corresponding to a Specific Activity of 30,000,000 IU/mg.