

## 32-20237: Animal-Free Recombinant Human TNF-Alpha(Discontinued)

**Reactivity :** Cow, Dog, Human, Monkey, Mouse, Pig, Rat, Sheep

**Alternative Name :** Tumor Necrosis Factor, TNFSF2, Cachectin, Differentiation-inducing factor (DIF), Necrosin, Cytotoxin

### Description

#### Source:E.coli

TNF-Alpha is a pleiotropic pro-inflammatory cytokine secreted by various cells, including adipocytes, activated monocytes, macrophages, B cells, T cells and fibroblasts. It belongs to the TNF family of ligands, and signals through two receptors, TNFR1 and TNFR2. TNF-Alpha is cytotoxic to a wide variety of tumor cells, and is an essential factor in mediating the immune response against bacterial infections. TNF-Alpha also plays a role in the induction of septic shock, autoimmune diseases, rheumatoid arthritis, inflammation, and diabetes. Human and murine TNF-Alpha demonstrate significant cross-species reactivity. TNF-Alpha exists in two forms; a type II transmembrane protein, and a mature soluble protein. The TNF-Alpha transmembrane protein is proteolytically cleaved to yield a soluble, biologically active, 17 kDa TNF-Alpha, which forms a non-covalently linked homotrimer in solution. Recombinant Human TNF-Alpha is a soluble 157 amino acid protein (17.4 kDa) which corresponds to C-terminal extracellular domain of the full length transmembrane protein.

### Product Info

**Amount :** 10 µg / 50 µg

**Purification :** Purity: >= 98% by SDS-PAGE gel and HPLC analyses.

**Amino Acid :** VRSSSRTPSD KPAHVVANP QAEGQLQWLN RRANALLANG VELRDNQLVV PSEGLYLIYS QVLFKGQGCP  
STHVLLTHTI SRIAVSYQTK VNLLSAIKSP CQRETPEGAE AKPWYEPIYL GGVFQLEKGD RLSAEINRPD  
YLDFAESGQV YFGIIAL

### Application Note

The  $\text{ED}_{50}$  as determined by the cytotoxicity of murine L929 cells in the presence of Actinomycin D is  $\leq 0.05 \text{ ng/ml}$ , corresponding to a specific activity of  $\geq 2 \times 10^6 \text{ IU/mg}$ .