

## Product datasheet for **TP720007XL**

### TNF alpha (TNF) (NM\_000594) Human Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human tumor necrosis factor (TNF superfamily, member 2) (TNF), the soluble form (Val77 -Leu233)
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	Val77-Leu233
Tag:	Tag Free
Predicted MW:	17.5 kDa
Concentration:	lot specific
Purity:	>95% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	Provided lyophilized from a 0.2 µm filtered solution of 20 mM Tris-HCl, 150 mM NaCl
Bioactivity:	ED50 is less than 0.03 ng/ml as determined by the cytolysis of murine L929 cells in the presence of Actinomycin D. Specific Activity of 3.0 x 10 <sup>7</sup> IU/mg.
Endotoxin:	< 0.1 EU per µg protein as determined by LAL test
Reconstitution Method:	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. Dissolve the lyophilized protein in ddH <sub>2</sub> O. It is not recommended to reconstitute a concentration less than 100 µg/ml. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
Storage:	Store at -80°C.
Stability:	Stable for at least 6 months from date of receipt under proper storage and handling conditions.
RefSeq:	<a href="#">NP_000585</a>
Locus ID:	7124
UniProt ID:	<a href="#">P01375</a> , <a href="#">Q5STB3</a>
Cytogenetics:	6p21.33
Synonyms:	DIF; TNF-alpha; TNFA; TNFSF2; TNLG1F



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**Summary:**

This gene encodes a multifunctional proinflammatory cytokine that belongs to the tumor necrosis factor (TNF) superfamily. This cytokine is mainly secreted by macrophages. It can bind to, and thus functions through its receptors TNFRSF1A/TNFR1 and TNFRSF1B/TNFR. This cytokine is involved in the regulation of a wide spectrum of biological processes including cell proliferation, differentiation, apoptosis, lipid metabolism, and coagulation. This cytokine has been implicated in a variety of diseases, including autoimmune diseases, insulin resistance, psoriasis, rheumatoid arthritis ankylosing spondylitis, tuberculosis, autosomal dominant polycystic kidney disease, and cancer. Mutations in this gene affect susceptibility to cerebral malaria, septic shock, and Alzheimer disease. Knockout studies in mice also suggested the neuroprotective function of this cytokine. [provided by RefSeq, Aug 2020]

**Protein Families:**

Druggable Genome, Secreted Protein, Transcription Factors, Transmembrane

**Protein Pathways:**

Adipocytokine signaling pathway, Allograft rejection, Alzheimer's disease, Amyotrophic lateral sclerosis (ALS), Apoptosis, Asthma, Cytokine-cytokine receptor interaction, Dilated cardiomyopathy, Fc epsilon RI signaling pathway, Graft-versus-host disease, Hematopoietic cell lineage, Hypertrophic cardiomyopathy (HCM), MAPK signaling pathway, Natural killer cell mediated cytotoxicity, NOD-like receptor signaling pathway, RIG-I-like receptor signaling pathway, Systemic lupus erythematosus, T cell receptor signaling pathway, TGF-beta signaling pathway, Toll-like receptor signaling pathway, Type I diabetes mellitus, Type II diabetes mellitus

**Product images:**