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Product datasheet for DA3542

Tumor necrosis factor (TNF-alpha) Human Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Tumor necrosis factor (TNF-alpha) human recombinant protein, 10 µg
Species:	Human
Expression Host:	E. coli
Predicted MW:	17.48 kDa
Concentration:	N/A
Purity:	>98% by RP-HPLC, Anion-exchange FPLC, Silver stain
Buffer:	Presentation State: Purified State: Lyophilized purified fraction Buffer System: 20 mM PBS, pH 7.2, 10 mM NaCl
Bioactivity:	Biological: Human rh TNF-alpha is fully biologically active when compared to standards. The ED50 as determined by the cytolysis of Murine L929 cells in the presence of Actinomycin-D is < 0.05 ng/ml. Specific: 2 x 10^7 units/mg
Endotoxin:	< 0.1 ng per µg (IEU/µg) of rh TNF-alpha
Reconstitution Method:	Restore in sterile water to a concentration of 0.1 mg/ml. This solution can be diluted into other buffered solutions or stored at –20°C for future use. For most in-vitro applications, TNF-alpha exerts its biological activity in the concentration range of 0.05 to 20.0 ng/ml.
Preparation:	Lyophilized purified fraction
Protein Description:	Recombinant Human TNF-a produced in *E. coli* is a single, non-glycosylated polypeptide having a Molecular Mass of 17.4 kDa protein and consisting of 158 amino acid residues.
Storage:	Store lyophilized rh TNF-alpha desiccated at -20°C. Reconstituted rh TNF-alpha should be stored in working aliquots at -18°C. For long term storage it is recommended to add a carrier protein (0.1% HAS or BSA). Avoid repeated freezing and thawing.
Stability:	Shelf life: One year from despatch.
RefSeq:	NP_000585

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Locus ID:	7124
UniProt ID:	P01375
Cytogenetics:	6p21.33
Synonyms:	TNF, TNF-a, TNFA, TNFSF2, Cachectin
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/TNFBR. 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