TNFα human Recombinant Protein

Product Specifications

Catalog Number:	908-066
Protein Species:	Human
Application Notes: *The optimal dilution for a specific application must be determined by the investigator*	**ELISA** Yes ***In Vitro* Assays** Yes **WB** Yes
Purity:	>98.0% as determined by SDS-PAGE and RP-HPLC analysis
Format:	Sterile filtered liquid lyophilized from 1mg of TNF-α protein containing 20mM PBS, pH 7.2 and 10mM NaCl.
Biological Activity:	Fully biologically active when compared to World Health Organization (WHO) reference standards. *The ED50, calculated by the cytolysis of murine L929 cells in the presence of Actinomycin D is < 0.05 ng/mL, corresponding to a specific activity of 2 x 10^7 IU/mg.*
Storage: *Shipping conditions may differ from the recommended storage temperature*	Lyophilized; store desiccated below -18°C; store reconstituted below -18°C (0.1 % HSA or BSA recommended)
Related Products:	
900-099	Human TNFα EIA Kit
CSA-801	TNFα Monoclonal Antibody
CSA-815	TNF-R1 Polyclonal Antibody
905-593	TNF-R2 Polyclonal Antibody

Background:

Tumor necrosis factor-alpha (TNFα), also known as cachectin, is a 17.5 kDa, 157 amino acid member of the TNF superfamily of cytokines that is a potent lympho id factor with effects on a wide range of target cells [1-3]. Active TNFα is produced as both soluble and membrane-anchored trimers by macrophages, NK cells, and T- and B-lymphocytes. TNF exerts proinflammatory signals via binding and inducing trimerization of TNF-receptor 1 (TNFR1) expressed on most normal and transformed cells, or to TNF-receptor 2 (TNFR2), expressed on endothelial and most immune cells [2-3]. TNF signaling regulates hematopoiesis differentiation, endothelial cell activation, apoptosis, lipid metabolism, tumor progression, and immune surveillance, and dysregulation of TNF or its receptors is implicated in numerous disease states including cancer, osteoporosis, autoimmune diseases, diabetes, and atherosclerosis [2-3].

References:

1. Herbein, G. and O'Brien, W.A. (2000) Proc Soc Exp Biol Med. **223**, 241-257.
2. Aggarwal, B.B. (2003) Nat Rev Immunol. **3**, 745-756.
3. Taylor, P.C., Williams, R.O. and Feldmann, M. (2004) Curr Opin Biotechnol. **15**, 557-563.

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