Human TNF-alpha / TNFA Protein

Catalog Number: 10602-HNAE

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

DIF; TNF-alpha; TNFA; TNFSF2

Protein Construction:

A DNA sequence encoding the human TNF-α soluble form (NP_000585.2) (Val 77-Leu 233) was expressed, with an initial Met at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: ≥ 95 % as determined by SDS-PAGE. ≥ 95 % as determined by SEC-HPLC.

Bio Activity:

1.Measured in a cytotoxicity assay using L929 mouse fibrosarcoma cells in the presence of the metabolic inhibitor actinomycin D. The ED50 for this effect is typically 3-30 pg/mL.
2.Captured Adalimumab (Cat.No.68056-H001) on Anti-human IgG Fc via CM5 Chip can TNF-α (Cat.No.10602-HNAE) with an affinity constant of 0.2843 nM as determined in a SPR assay (Biacore T200) (QC tested)

Endotoxin:

< 5 EU per mg of the protein as determined by the LAL method.

Predicted N terminal: Met

Molecular Mass:

The recombinant human TNF-α consists of 158 amino acids and has a predicted molecular mass of 17.5 kDa which is also estimated by SDS-PAGE.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Stability & Storage:
Samples are stable for twelve months from date of receipt at -20℃ to -80℃.

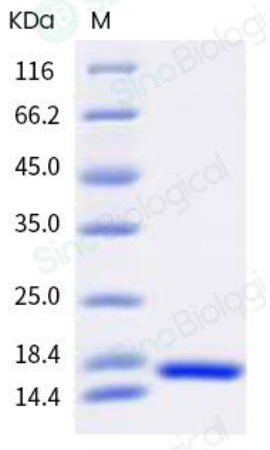
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Tumor necrosis factor alpha (TNF-alpha), also known as TNF, TNFA or TNFSF2, is the prototypic cytokine of the TNF superfamily, and is a multifunctional molecule involved in the regulation of a wide spectrum of biological processes including cell proliferation, differentiation, apoptosis, lipid metabolism, and coagulation. Two receptors, TNF-R1 (TNF receptor type 1; CD120a; p55/60) and TNF-R2 (TNF receptor type 2; CD120b; p75/80), bind to TNF-alpha. TNF-alpha protein is produced mainly by macrophages, and large amounts of this cytokine are released in response to lipopolysaccharide, other bacterial products, and Interleukin-1 (IL-1). TNF-alpha is involved in fighting against the tumorigenesis, thus, is regarded as a molecular insight in cancer treatment.TNF-alpha Protein & Antibody