

Human TNF-alpha / TNFA Protein (Fc Tag)

Catalog Number: 10602-H01H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

DIF; TNF-alpha; TNFA; TNFSF2

Protein Construction:

A DNA sequence encoding the human TNF (NP_000585.2) (Val77-Leu233) was expressed with the Fc region of human IgG1 at the N-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE.

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 1-5 ng/mL (Routinely tested).

2. Immobilized Recombinant Human TNF-alpha / TNFA Protein (Fc Tag) (Cat: 10602-H01H) at 2 µg/mL (100 µL/well) can bind Recombinant Human TNFR1/CD120a Protein (AVI & His Tag), Biotinylated (Cat: 10872-H27H-B), the EC50 is 1-3 ng/mL (QC tested).

Endotoxin:

< 1.0 EU per µg protein as determined by the LAL method.

Predicted N terminal: Glu

Molecular Mass:

The recombinant human TNF consists of 417 amino acids and predicts a molecular mass of 45.8 kDa.

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°C to -80°C.

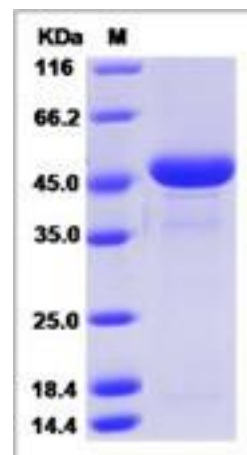
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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; CD12a; p55/6) and TNF-R2 (TNF receptor type 2; CD12b; p75/8), 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.

References

Hector J, et al. (2007) TNF-alpha alters visfatin and adiponectin levels in human fat. *Horm Metab Res.* 39(4): 250-5.
Berthold-Losleben M, et al. (2008) The TNF-alpha System: Functional Aspects in Depression, Narcolepsy and Psychopharmacology. *Curr Neuropharmacol.* 6(3): 193-202.