

Mouse TNF-alpha / TNFA Protein (ECD)

Catalog Number: 50349-MNAE



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

DIF; TNF-a; TNF-alpha; Tnfa; TNFalpha; Tnfsf1a; TNFSF2

Protein Construction:

A DNA sequence encoding the soluble form of mouse TNF- α (NP_038721.1) (Leu 80-Leu 235) was expressed, with an initial Met at the N-terminus.

Source: Mouse

Expression Host: E. coli

QC Testing

Purity: $\geq 95\%$ as determined by SDS-PAGE

Bio Activity:

Measured in a cytotoxicity assay using L929 mouse fibrosarcoma cells in the presence of the metabolic inhibitor actinomycin D. The ED_{50} for this effect is typically 3-30 pg/mL.

Endotoxin:

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

Predicted N terminal: Met

Molecular Mass:

The recombinant mouse TNF- α consists of 157 amino acids and migrates with an apparent molecular mass of 17.39 kDa as estimated in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH7.4

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 .

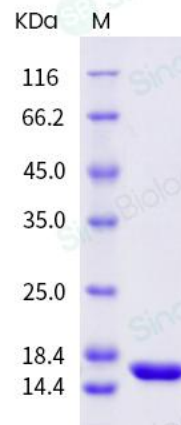
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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.