

Cynomolgus / Rhesus TNF- alpha / TNFA / TNFSF1A / Cachectin Protein

Catalog Number: 90018-CNAE



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

TNF

Protein Construction:

A DNA sequence encoding the cynomolgus / rhesus TNF [(Identical to the rhesus TNF (NP_001040614.1)) (Val77-Leu233)] was expressed and purified with an initial Met. Cynomolgus and Rhesus TNF sequences are identical.

Source: Cynomolgus, Rhesus

Expression Host: E. coli

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio Activity:

1. Measured in a cytotoxicity assay using L-929 mouse fibrosarcoma cells in the presence of the metabolic inhibitor actinomycin D. The ED50 for this effect is typically 2-20 pg/mL.

2. Anti-TNF α (Research Grade Adalim[®]mab Biosimilar) captured on Protein A chip can bind Recombinant Cynomolgus, Rhesus TNF- α Protein (Cat. No. 90018-CNAE) with an affinity constant of 0.201 nM as determined in an SPR assay (Biacore 8K) (Routinely tested).

3. Immobilized Recombinant Cynomolgus/Rhesus/TNF- α /TNFA/TNFSF1A/Cachectin Protein (Cat: 90018-CNAE) at 1 μ g/mL (100 μ L/well) can bind Anti-TNF α (Research Grade Adalim[®]mab Biosimilar), the EC50 is 3.0 ng/mL (Routinely tested).

4. Immobilized Recombinant Cynomolgus/Rhesus/TNF- α /TNFA/TNFSF1A/Cachectin Protein (Cat: 90018-CNAE) at 5 μ g/mL (100 μ L/well) can bind Recombinant Cynomolgus / Rhesus TNFR2 / CD120b / TNFRSF1B Protein (Fc Tag) (Cat: 90102-C02H), the EC50 is 1.5-6.0 ng/mL (QC tested).

Endotoxin:

Please contact us for more information.

Predicted N terminal: Met

Molecular Mass:

The recombinant cynomolgus / rhesus TNF consists of 158 amino acids and has a calculated molecular mass of 17.4 kDa.

Formulation:

Lyophilized from sterile 50 mM Tris, 50 mM NaCl, pH 8.0.

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.

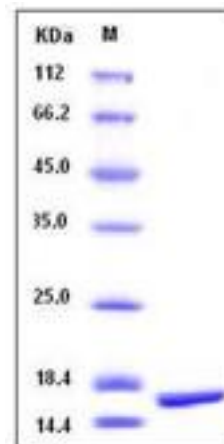
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Tumor necrosis factor alpha (TNF- α), 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- α . TNF- α 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- α is involved in fighting against the tumorigenesis, thus, is regarded as a molecular insight in cancer treatment.

References

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