Data Sheet (Cat.No.TMPY-05516)

TargetMol

TNF alpha Protein, Cynomolgus, Recombinant, Biotinylated

General Information

Synonyms: tumor necrosis factor;TNF-α

Protein Construction: A DNA sequence encoding the cynomolgus TNF (NP_001272206.1) (Val77-Leu233) was expressed and purified with an initial Met. The purified protein was biotinylated in vitro. Predicted N terminal: Met

Species: Cynomolgus

Expression Host: E. coli

Accession: P79337

Molecular Weight: 17.4 kDa (predicted)

QC Testing

Biological Activity: 1.Immobilized Anti-TNFa (Adalimumab Biosimilar) at 5 μg/mL (100 μL/well) can bind Recombinant Cynomolgus TNF-alpha/TNFA Protein, Biotinylated (Cat#TMPY-05516), the EC50 is 2.1-6.2 ng/mL (Routinely tested).
2.Immobilized Recombinant Cynomolgus/Rhesus TNFR2/CD120b/TNFRSF1B Protein (Fc Tag) (Cat#TMPY-03588) at 5 μg/mL (100 μL/well) can bind Recombinant Cynomolgus TNF-alpha/TNFA Protein, Biotinylated (Cat#TMPY-05516), the EC50 is 3.7-11.2 ng/mL (QC tested).

Purity: > 95 % as determined by SDS-PAGE.

Endotoxin: Please contact us for more information.

Formulation: Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

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 & AntibodyCancer ImmunotherapyImmune CheckpointImmunotherapyTargeted Therapy

Reference

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.