Mouse TNF-alpha Protein, Fc Tag, active trimer (MALS verified)

Catalog # TNA-M5257

Synonym

DIF,TNF-alpha,TNFA,TNFSF2,cachexin,cachectin,TNFα

Source

Mouse TNF-alpha Protein, Fc Tag(TNA-M5257) is expressed from human 293 cells (HEK293). It contains AA Leu 80 - Leu 235 (Accession # P06804-1). Predicted N-terminus: Leu 80

Molecular Characterization

TNF-alpha(Leu 80 - Leu 235) P06804-1	Fc(Pro 100 - Lys 330) P01857

This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 43.7 kDa. The protein migrates as 45-50 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method / rFC method.

Purity

>90% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

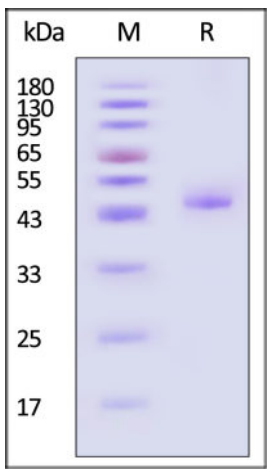
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

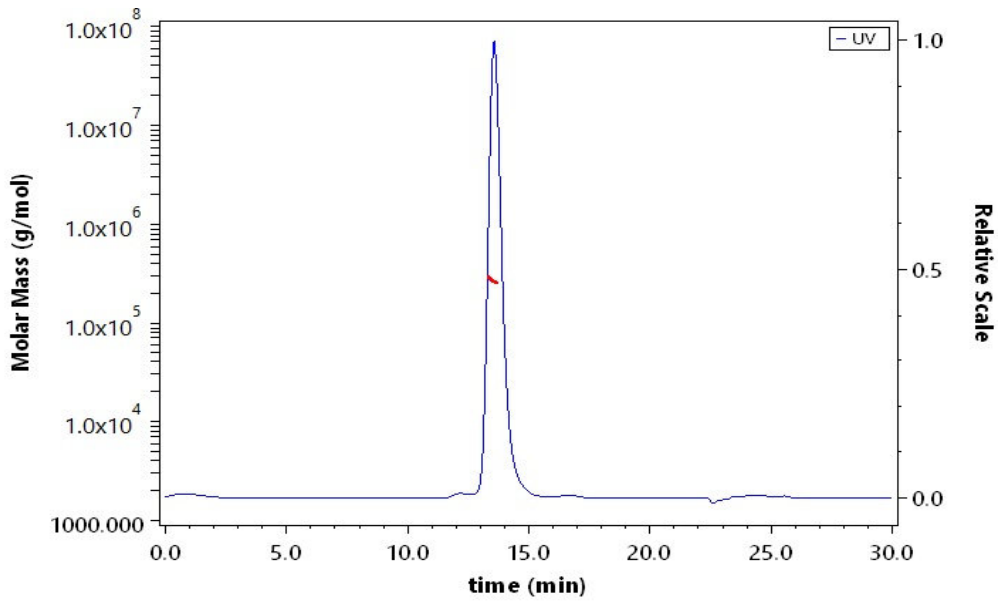
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Mouse TNF-alpha Protein, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS



The purity of Mouse TNF-alpha Protein, Fc Tag (Cat. No. TNA-M5257) is more than 95% and the molecular weight of this protein is around 255-275 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA

TNF-alpha ELISA

TNF-alpha ELISA

Immobilized Mouse TNF-alpha Protein, Fc Tag (Cat. No. TNA-M5257) at 5 μg/mL (100 μL/well) can bind Human TNFR1, His Tag (Cat. No. TN1-H5222) with a linear range of 1-16 ng/mL (QC tested).

Immobilized Biotinylated Human TNFR2, His,Avitag (Cat. No. TN2-H82E3) at 1 μg/mL (100 μL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 μg/well) plate can bind Mouse TNF-alpha Protein, Fc Tag (Cat. No. TNA-M5257) with a linear range of 0.1-1 ng/mL (Routinely tested).

Immobilized Human TNFR1, His Tag (Cat. No. TN1-H5222) at 5 μg/mL (100 μL/well) can bind Mouse TNF-alpha Protein, Fc Tag (Cat. No. TNA-M5257) with a linear range of 0.1-2 ng/mL (Routinely tested).

Background

Tumor necrosis factor alpha (TNFα) is a cytokine produced primarily by monocytes and macrophages. It is found in synovial cells and macrophages in the tissues.The primary role of TNFα is in the regulation of immune cells. TNFα is able to induce apoptotic cell death, to induce inflammation, and to inhibit tumorigenesis and viral replication. Dysregulation of TNFα production has been implicated in a variety of human diseases, including major depression, Alzheimer's disease and cancer. Recombinant TNFα is used as an immunostimulant under the INN tasonermin. TNFα can be produced ectopically in the setting of malignancy and parallels parathyroid hormone both in causing secondary hypercalcemia and in the cancers with which excessive production is associated.