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User Manual

Tumor Necrosis Factor-alpha (TNF-α) (Murine)

Cat. No. METNP-01012

Description:

Tumor necrosis factor alpha (TNF-α) is produced by neutrophils, activated lymphocytes, macrophages, NK cells, LAK cells, astrocytes endothelial cells, smooth muscle cells and some transformed cells. Mouse TNF-α occurs as a membrane-anchored form. The naturally-occurring form of TNF-α is glycosylated, but non-glycosylated recombinant TNF-α has comparable biological activity. The biologically active native form of TNF-α is reportedly a trimer. Human and murine TNF-α show approximately 79% homology at the amino acid level and crossreactivity between the two species.

Source:

Escherichia coli

Unit:

20 µg

Reconstitution:

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at < -20°C. Further dilutions should be made in appropriate buffered solutions.

Formulation:

Lyophilized from a 0.2 µm filtered solution in PBS, pH 7.2.

Storage:

This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working

aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

Molecular Weight:

Approximately 17.3 kDa. The recombinant murine TNF-α is a soluble 157 amino acid protein which corresponds to C-terminal extracellular domain of the full length transmembrane protein.

Endotoxin:

Less than 1 EU/µg of TNF-α as determined by LAL method.

Usage:

This material is offered by Cyagen Biosciences for research, laboratory or further evaluation purposes. FOR RESEARCH USE ONLY. NOT INTENDED FOR ANY ANIMAL OR HUMAN THERAP EUTIC OR DIAGNOSTIC USE.

Biological Activity:

The ED50 determined by a cytotoxicity assay using murine L929 cells is less than 0.1 ng/mL, corresponding to a specific activity of > 1.0×10^7 IU/mg in the presence of actinomycin D.

Physical Appearance:

Sterile filtered white lyophilized (freeze-dried) powder.

AA Sequence:

MLRSSSQNSSDKPVAHVVANHQVEEQLEWLSQRANALLANGMDLKDNQLVVPADGLYLVY SQVLFKGQGC PDYVLLTHTV SRFAISYQEKVNLLSAVKSP CPKDTPEGAE LKPWYEPIYL GGVFQLEKGD QLSAEVNLPK YLDFAESGQV YFGVIAL

Purity:

> 98% by SDS-PAGE and HPLC analyses.

Material Safety Data Sheets (MSDSs) are available upon request.

The Certificate of Analysis (COA), which provides detailed quality control information for each product, is also available at the Cyagen website.

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