

DATASHEET Version 20181206

TNF-α, Mouse

Cat. No.: Z02774-20

Size: 20.0 ug

Synonyms: Tumor Necrosis Factor-alpha (TNF- α),

Mouse;

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 nonglycosylated recombinant TNF-α has comparable biological activity. The biologically active native form of TNF-α is reportedly a trimer. Human and mouse TNF-α show approximately 79% homology at the amino acid level and crossreactivity between the two species.

Amino Acid Sequence:

00001 MLRSSSQNSS DKPVAHVVAN HQVEEQLEWL SQRANALLAN 00041 GMDLKDNQLV VPADGLYLVY SQVLFKGQGC PDYVLLTHTV 00081 SRFAISYQEK VNLLSAVKSP CPKDTPEGAE LKPWYEPIYL 00121 GGVFOLEKGD OLSAEVNLPK YLDFAESGOV YFGVIAL Source: E. coli Species: Mouse

Biological Activity: Fully biologically active when compared to standard. The ED₅₀ as determined by a cytotoxicity assay using murine L929 cells is less than 0.1 ng/ml, corresponding to a specific activity of $> 1.0 \times 10^7$ IU/mg in the presence of actinomycin D.

Molecular Weight: Approximately 17.4 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.

Formulation: Lyophilized from a $0.2 \mu m$ filtered solution in PBS, pH 7.2.

Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

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 \leq -20 °C. Further dilutions should be made in appropriate buffered solutions.

Purity: > 98 % by SDS-PAGE and HPLC analyses.

Endotoxin Level: Less than 1 EU/ μ g of rMuTNF- α as determined by LAL method.

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.