

## TNF- $\alpha$ , Mouse

**Cat. No.:** Z02774-5

**Size:** 5.0 ug

**Synonyms:** Tumor Necrosis Factor-alpha (TNF- $\alpha$ ), Mouse;

### Description:

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

### Amino Acid Sequence:

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00001 MLRSSSQNSS DKPVAHVVAN HQVEEQLEWL SQRANALLAN
00041 GMDLKDNQLV VPADGLYLVY SQVLFKGGCC PDYVLLTHTV
00081 SRFAISYQEK VNLLSAVKSP CPKDTPEGAE LKPWYEPIYL
00121 GGVFQLEKGD QLSAEVNLPK YLDFAESGQV YFGVIAL
```

**Source:** *E. coli*

**Species:** Mouse

**Biological Activity:** Fully biologically active when compared to standard. The ED<sub>50</sub> 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- $\alpha$  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/ $\mu$ g of rMuTNF- $\alpha$  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.