# Product Data Sheet

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| Product Name: | TNF a Mouse |
| Cat. No.: | GP20968 |
| Batch No.: | 1 |

## Product Data

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| Purity | Greater than 97.0% as determined by:(a) Analysis by RP-HPLC.(c) Analysis by SDS-PAGE. | Source | Escherichia Coli. |
| Phycical Appearance | Sterile Filtered White lyophilized (freeze-dried) powder. | Shipping Condition | Shipped at Room temp. |
| Synonyms | TNF-alpha; Tumor necrosis factor ligand superfamily member 2; TNF-a; Cachectin; DIF; TNFA; TNFSF2. | | |
| Amino Acid Sequence | MLRSSSQNSS DKPVAHVVAN HQVEEQLEWL SQRANALLAN GMDLKDNQLV VPADGLYLVY SQVLFKGQGC PDYVLLTHTV SRFAISYQEK VNLLSAVKSP CPKDTPEGAE LKPWYEPIYL GGVFQLEKGD QLSAEVNLPK YLDFAESGQV YFGVIAL | | |
| Solubility | It is recommended to reconstitute the lyophilized Tumor Necrosis Factor-alpha in sterile 18M-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions. | | |
| Formulation | Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.2. | | |

## Introduction

Tumor necrosis factor is a cytokine involved in systemic inflammation and is a member of a group of cytokines that all stimulate the acute phase reaction. TNF is mainly secreted by macrophages. TNF causes apoptotic cell death, cellular proliferation, differentiation, inflammation, tumorigenesis and viral replication, TNF is also involved in lipid metabolism, and coagulation. TNF's primary role is in the regulation of immune cells.Dysregulation and, in particular, overproduction of TNF have been implicated in a variety of human diseases- autoimmune diseases, insulin resistance, and cancer.

## Biological Activity


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The ED50 as determined by the cytolysis of murine L929 cells in the presence of Actinomycin D is < 0.1ng/ml, corresponding to a Specific Activity of 10,000,000 Units/mg.

### Stability

Lyophilized Tumor Necrosis Factor-a although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution TNF-a should be stored at 4°C between 2-7 days and for future use below -18°C .For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).Please prevent freeze-thaw cycles.

### Background

Tumor Necrosis Factor-a Mouse Recombinant produced in E. coli is a single, non glycosylated, polypeptide chain containing 157 amino acids and having a molecular mass of 17301.32 Dalton. The TNF-alpha is purified by standard chromatographic techniques.


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