

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant Rat Tumor Necrosis Factor-alpha (rRtTNF- α)

Catalog Number: PR3014

Source: Escherichia coli.

Quantity: 5 μ g/20 μ g/1.0mg

Description

Tumor necrosis factor alpha (TNF- α), also called cachectin, is produced by neutrophils, activated lymphocytes, macrophages, NK cells, LAK cells, astrocytes endothelial cells, smooth muscle cells and some transformed cells. TNF- α occurs as a secreted, soluble form and as a membrane-anchored form, both of which are biologically active. 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. Two types of receptors for TNF- α have been described and virtually all cell types studied show the presence of one or both of these receptor types.

Molecular Weight:

Approximately 17.3 kDa. a single, non-glycosylated polypeptide chain containing 157 amino acids.

Purity:

>95% by SDS-PAGE and HPLC analyses.

Biological Activity:

Fully biologically active when compared to standard. The Specific Activity is $\geq 5.0 \times 10^7$ IU/mg as determined by the cytolysis of murine L929 cells in the presence of Actinomycin D.

Physical Appearance:

Sterile Filtered White Lyophilized (freeze-dried) powder.

Formulation:

Lyophilized from a 0.2mm filtered concentrated solution in 20mM PB, pH7.2, 150mM NaCl.

AA Sequence:

M L R S S S Q N S S D K P V V H V V A N H Q A E E Q
L E W L S Q R A N A L L A N G M D L K D N Q L V V P
A D G L Y L I Y S Q V L F K G Q G C P D Y V L L T H T
V S R F A T S Y Q E K V S L L S A I K S P C P K D T P E
G A E L K P W Y E P M Y L G G V S Q L E K G D L L S
A E V N L P K Y L D I T E S G Q V Y F G V I A L

Endotoxin:

Less than 1EU/mg of rRtTNF- α as determined by LAL method.

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 $< -20^{\circ}\text{C}$. Further dilutions should be made in appropriate buffered solutions.

Storage:

This lyophilized preparation is stable at $2-8^{\circ}\text{C}$, 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 $2-8^{\circ}\text{C}$. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C . Avoid repeated freeze/thaw cycles.

Usage:

This material is offered by USA Bioworld biotech for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE. Made in China

MADE IN CHINA

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