



11 Park Drive, Suite 12  
Boston, MA 02215

## Human Tumor Necrosis Factor-Beta (TNF-b)

### ORDERING INFORMATION

Catalog No: rAP-0163;

Size: 5 µg; 20 µg

Storage: <- 20° C

### Synonyms:

Lymphotoxin-alpha, LT-alpha, TNF-beta, Tumor necrosis factor ligand superfamily member 1, LTA, LT, TNFB, TNFSF1.

### Introduction:

Lymphotoxin alpha, a member of the tumor necrosis factor family, is a cytokine produced by lymphocytes. LTA is highly inducible, secreted, and exists as homotrimeric molecule. LTA forms heterotrimers with lymphotoxin-beta which anchors lymphotoxin-alpha to the cell surface. LTA mediates a large variety of inflammatory, immunostimulatory, and antiviral responses. LTA is also involved in the formation of secondary lymphoid organs during development and plays a role in apoptosis.

### Description:

Tumor Necrosis Factor-b Human Recombinant (Lymphotoxin) produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 171 amino acids and having a molecular mass of 18645 Dalton. The TNF-b is purified by standard chromatographic techniques.

### Source:

*Escherichia Coli.*

### Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

### Formulation:

Lyophilized protein with no additives.

### Solubility:

It is recommended to reconstitute the lyophilized Tumor Necrosis Factor-beta in sterile 18MΩ-cm H<sub>2</sub>O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

### Stability:

Lyophilized Tumor Necrosis Factor-b although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution TNF-b 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.**

### Purity:

Greater than 98.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Analysis by SDS-PAG.

### Amino acid sequence:

The sequence of the first five N-terminal amino acids was determined and was found to be Met-Val-Arg-Ser-Ser.

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**Biological Activity:**

The ED50 as determined by the cytolysis of murine L929 cells in the presence of Actinomycin D is < 0.05 ng/ml, corresponding to a Specific Activity of  $2 \times 10^7$  IU/mg.

**Protein content:**

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm using the absorbency value of 1.082 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).
2. Analysis by RP-HPLC, using a calibrated solution of TNF-b as a Reference Standard.

**Usage:**

Angio-Proteomie's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.