

Prime Gene Recombinant Human Tumor Necrosis Factorbeta/TNFSF1

(rHuTNF-β/TNFSF1)

PrimeGene Technical Data Sheet

Catalog Number:

103-02

Source:

Escherichia coli.

Molecular Weight:

Approximately 18.7 kDa, a single non-glycosylated polypeptide chain containing 171 amino acids.

Quantity:

 $5\mu g/20\mu g/1000\mu g$

AA Sequence:

LPGVGLTPSA AQTARQHPKM HLAHSTLKPA AHLIGDPSKQ NSLLWRANTD RAFLQDGFSL SNNSLLVPTS GIYFVYSQVV FSGKAYSPKA TSSPLYLAHE

VQLFSSQYPF HVPLLSSQKM VYPGLQEPWL HSMYHGAAFQ LTQGDQLSTH

TDGIPHLVLS PSTVFFGAFA L

Purity:

> 96 % by SDS-PAGE and HPLC analyses.

Biological Activity:

Fully biologically active when compared to standard. The ED₅₀ as determined by a cytotoxicity assay

using murine L929 cells is less than 5 pg/ml, corresponding to a specific activity of $> 2.0 \times 10^8$ IU/mg

in the presence of actinomycin D.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH7.4, with 0.02 % Tween-20.

Endotoxin:

Less than 0.1 EU/μg of rHuTNF-β/TNFSF1 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 \leq -20 °C. Further dilutions should be made in appropriate buffered solutions.

Shipping:

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature

recommended below.

Stability & Storage:

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

12 months from date of receipt, -20 to -70 °C as supplied.

1 month, 2 to 8 °C under sterile conditions after reconstitution.

3 months, -20 to -70 °C under sterile conditions after reconstitution.

Usage:

This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory or further

evaluation purposes. NOT FOR HUMAN USE.

Human Tumor Necrosis Factor-beta/TNFSF1

TNF-beta, also known as lymphotoxin-alpha (LTalpha) and TNF-alpha are two structurally and functionally related proteins that bind to the same cell surface receptors (TNF RI and TNF RII) and produce a vast range of similar, but not identical effects. Mature TNF-beta/LTalpha and TNF-alpha share approximately 35% protein sequence homology, and the biologically active secreted forms of both proteins are trimers. Human and mouse TNF-beta/LTalpha share approximately 74% homology in their amino acid sequence and exhibit cross-species activity. Soluble TNF-beta/LTalpha is a homotrimer in solution. Secreted TNFbeta/LTalpha also complexes with the membrane associated LTbeta/TNFSF3 to generate two types of heterotrimers, LTalpha1/beta2 and LTalpha2/beta1.

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