

DATASHEET
Version 20181206**TNF- β , Human****Cat. No.:** Z03375-1**Size:** 1.0 mg**Synonyms:** Tumor Necrosis Factor- β , human; TNF-beta, human, TNFSF1, Lymphotoxin-alpha (LT- α)**Description:**

TNF is secreted by macrophages, monocytes, neutrophils, T-cells, NK-cells following their stimulation by bacterial LPS. Cells expressing CD4 secrete TNF-alpha while CD8 cells secrete little or no TNF-alpha. The synthesis of TNF-alpha is induced by many different stimuli including interferons, IL2, GM-CSF. TNF- β is a potent mediator of inflammatory and immune responses. It belongs to the TNF family of ligands, and signals through TNFR1 and TNFR2. TNF- β is produced by activated T and B lymphocytes, and has similar activities to TNF- α . It mediates a large variety of inflammatory, immunostimulatory, and antiviral responses.

Recombinant Human TNF- β produced in *E. coli* is a glycosylated polypeptide chain of 172 amino acids. A fully biologically active molecule, rhTNF- β has a molecular mass of 18.6 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

Amino Acid Sequence:

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00001 MLPGVGLTPS AAQTARQHPK MHLAHSTLKP AAHLIGDPSK
00041 QNSLLWRANT DRAFLQDGFS LSNNLLVPT SGIYFVYSQV
00081 VFSGKAYSPK ATSSPLYLAH EVQLFSSQYP FHVPLLSSQK
00121 MVYPGLQEPW LHSMYHGAAF QLTQGDQLST HTDGIPHLVL
00161 SPSTVFFGAF AL
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Source: *E. coli***Species:** Human**Biological Activity:** ED₅₀ < 4 pg/mL, measured in a cytotoxicity assay using L-929 mouse fibrosarcoma cells in the presence of the metabolic inhibitor actinomycin D, corresponding to a specific activity of >2.5 x 10⁸ units/mg.**Molecular Weight:** 18.6kDa, observed by reducing SDS-PAGE.**Formulation:** Lyophilized after extensive dialysis against PBS.**Reconstitution:** Reconstituted in ddH₂O or PBS at 100 μ g/ml.**Purity:** > 95% as analyzed by SDS-PAGE.**Storage:** Lyophilized recombinant Human Tumor Necrosis Factor-beta (TNF- β) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, Human TNF- β should be stable up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) can be added. Avoid repeated freeze-thaw cycles.