

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

PrimeGene Technical Data Sheet

Catalog Number: 143-01

Source: Escherichia coli.

Molecular Weight: Approximately 17.2 kDa, a single non-glycosylated polypeptide chain containing 156 amino acids.

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

AA Sequence: LRSSSQNSSD KPVAHVVANH QAEEQLEWLS QRANALLANG MDLKDNQLVV

PADGLYLIYS QVLFKGQGCP DYVLLTHTVS RFAISYQEKV SLLSAIKSPC

PKDTPEGAEL KPWYEPMYLG GVFQLEKGDL LSAEVNLPKY LDITESGQVY FGVIAL

Purity: > 98 % 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 0.05 ng/ml, corresponding to a specific activity of $> 2.0 \times 10^7$

IU/mg in the presence of actinomycin D.

Sterile Filtered White lyophilized (freeze-dried) powder. Physical Appearance:

Formulation: Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM PB, pH 7.2, 150 mM NaCl.

Endotoxin: Less than 1 EU/μg 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 \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.

Rat Tumor Necrosis Factor-alpha

Tumor necrosis factor alpha (TNF-α), also called cachectin, is the best-know member of the TNF-family, which can cause cell death. This protein 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. 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.

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