

Recombinant Murine Tumor Necrosis Factor-alpha (rMuTNF- α)

ChemWhat Technical Data Sheet (TDS)

Catalog Number:	123-01
Source:	<i>Escherichia coli</i> .
Molecular Weight:	Approximately 17.4 kDa. The recombinant murine TNF- α is a soluble 157 amino acid protein which corresponds to C-terminal extracellular domain of the full length transmembrane protein.
Quantity:	5 μ g/20 μ g/1000 μ g
AA Sequence:	MLRSSSQNSS DKPVAHVVAN HQVEEQLEWL SQRANALLAN GMDLKDNQLV VPADGLYL VY SQVLFKGGQC PDYVLLTHTV SRFAISYQEK VNLLSAVKSP CPKDTPEGAE LKPWYEPIYL GGVFQLEKGD QLSAEVNLPK YLDFAESGQV YFGVIAL
Purity:	> 98 % by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The ED ₅₀ as determined by a cytotoxicity assay using murine L929 cells is less than 0.1 ng/ml, corresponding to a specific activity of > 1.0 \times 10 ⁷ IU/mg in the presence of actinomycin D.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 μ m filtered solution in PBS, pH 7.2.
Endotoxin:	Less than 1 EU/ μ g of rMuTNF- 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 $^{\circ}$ 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. <ul style="list-style-type: none">● 12 months from date of receipt, -20 to -70 $^{\circ}$C as supplied.● 1 month, 2 to 8 $^{\circ}$C under sterile conditions after reconstitution.● 3 months, -20 to -70 $^{\circ}$C under sterile conditions after reconstitution.
Usage:	ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. NOT FOR HUMAN USE.

Mouse Tumor Necrosis Factor-alpha

Tumor necrosis factor alpha (TNF- α), also called cachectin, is the best-known 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. The biologically active native form of TNF- α is reportedly a trimer. Human and murine TNF- α show approximately 79 % homology at the amino acid level and cross-reactivity between the two species. 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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