

Technical Data Sheet

Flogen[®] Recombinant Human Tumor Necrosis

Factor-alpha,His (rHuTNF- α -His)

Catalog Number:	PGR103-001H
Source:	<i>Escherichia coli</i> .
Molecular Weight:	Approximately 18.3 kDa, a single, non-glycosylated polypeptide chain containing 157 amino acids with 6 \times His at N-terminus.
Quantity:	10 μ g/50 μ g/1mg
AA Sequence:	MHHHHHH VRS SSRTPSDKPV AHVVANPQAE GQLQWLNRRANALLANGVEL RDNQLVVPSE GLYLIYSQVL FKGQGCPSTHVLLTHTISRI AVSYQTKVNL LSAIKSPCQR ETPEGAEAKPWYEPIYLGGV FQLEKGDRLS AEINRPDYLD FAESGQVYFG IIAL
Purity:	>95% by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The ED ₅₀ 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 the metabolic inhibitor actinomycin D.
Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 μ m filtered concentrated solution in PBS, pH 7.0.
Endotoxin:	Less than 1EU/ μ g of rHuTNF- α -his 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 10mM HAc to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at $\leq -20^\circ\text{C}$. Further dilutions should be made in appropriate buffered solutions.
Storage:	This lyophilized preparation is stable at 2-8 $^\circ\text{C}$, but should be kept at -20 $^\circ\text{C}$ for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 $^\circ\text{C}$. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 $^\circ\text{C}$ to -70 $^\circ\text{C}$. Avoid repeated freeze/thaw cycles.
Usage:	This material is for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE.

Human Tumor Necrosis Factor-alpha, His

Tumor necrosis factor alpha (TNF- α), also called cachectin, 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 crossreactivity 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.