

Flogen[®] Recombinant Rhesus Macaque Tumor Necrosis Factor-alpha

(rRhTNF- α)

Catalog Number:	PGR0113-001
Source:	<i>Escherichia coli</i> .
Molecular Weight:	Approximately 17.3 kDa, a single non-glycosylated polypeptide chain containing 157 amino acids.
Quantity:	5 μ g/25 μ g/1000 μ g
AA Sequence:	VRSSSRTPSD KPVAHVVANP QAEGQLQWLN RRANALLANG VELTDNQLVV PSEGLYLIYS QVLFKGGQCP SNHVLLTHTI SRIAVSYQTK VNLLSAIKSP CQRETPEGAE AKPWYEPIYL GGVFQLEKGD RLSAEINLPD YLDFAESGQV YFGIIAL
Purity:	> 95 % 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 0.05 ng/ml, corresponding to a specific activity of > 2.0 $\times 10^7$ IU/mg in the presence of actinomycin D.
Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 μ m filtered concentrated solution in PBS, pH 7.4, 5 % trehalose.
Endotoxin:	Less than 1 EU/ μ g of rRhTNF- 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 ≤ -20 $^{\circ}$ C. Further dilutions should be made in appropriate buffered solutions.
Storage:	This lyophilized preparation is stable at 2-8 $^{\circ}$ C, but should be kept at -20 $^{\circ}$ C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 $^{\circ}$ C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 $^{\circ}$ C to -70 $^{\circ}$ C. Avoid repeated freeze/thaw cycles.
Usage:	For research, laboratory or further evaluation purposes. NOT FOR HUMAN USE.

Rhesus Macaque 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.

Rhesus macaque and human TNF- α show approximately 98 % homology at the amino acid level. 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.