

**Recombinant Rat Tumor Necrosis Factor- alpha
(rrTNF- α)
Catalog Number: 143-01**

Description	Tumor necrosis factor alpha (TNF- α) 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. 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.
Synonyms	TNF-alpha, Tumor necrosis factor ligand superfamily member 2, TNFa, Cachectin, DIF, TNFA, TNFSF2
AA Sequence	MLRSSSQNSS DKPVVHVVAN HQAEEQLEWL SQRANALLAN GMDLKDNQLV VPADGLYLIY SQVLFKGGQC PDYVLLTHTV SRFATSYQEK VSLLSAIKSP CPKDTPEGAE LKPWYEPMYL GGVSQLEKGD LLSAEVNLPK YLDITESGQV YFGVIAL
Source	<i>Escherichia coli</i>
Molecular Weight	Approximately 17.3 kDa. a single, non-glycosylated polypeptide chain containing 157 amino acids.
Purity	>95% by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active. Specific activity $\geq 5 \times 10^7$ units/mg, as determined by murine L929 cell cytotoxicity in the presence of Actinomycin D.
Physical Appearance	White lyophilized powder.
Formulation	Lyophilized from a 0.2 μ m filtered concentrated solution in 20mM PB, pH7.2, 150mM NaCl.
Endotoxin	< 1EU/ μ g of growth factor as determined by LAL method.
Reconstitution	Reconstitute in sterile distilled water containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL.
Storage	Store at -20°C after receiving. Upon reconstitution, store at 2-8°C for up to one week. For maximal stability, aliquot and store at -20°C. Avoid repeated freeze/ thaw cycles.
Usage	This product is for research use only. It is not approved for use in humans, animals, or <i>in vitro</i> diagnostic procedures.