

**Recombinant Murine Tumor Necrosis Factor- alpha
(rmTNF- α)
Catalog Number: 123-01**

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. Human and murine TNF- α show approximately 79% homology at the amino acid level and cross reactivity between the two species.
Synonyms	Cachectin, DIF, TNFA, TNFa, TNFSF2, TNF-alpha, APC1 protein
AA Sequence	MLRSSSQNSS DKPVAHVVAN HQVEEQLEWL SQRANALLAN GMDLKDNQL VVPADGLYL VYSQVLFKGQ GCPDYVLLTH TVSRFAISYQ EKVNLLSAVK SPCPKDTPEG AELKPWYEPI YLGGVFQLEK GDQLSAEVNL PKYLDFAESG QVYFGVIAL
Source	<i>Escherichia coli</i>
Molecular Weight	Approximately 17.3 kDa, a soluble 157 amino acid protein which corresponds to C-terminal extracellular domain of the full length transmembrane protein.
Purity	>95% by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active. ED ₅₀ is < 0.1ng/ml, corresponding to a specific activity > 1 × 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 (1mg/ml) solution in PBS, pH 7.2.
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.