

TNF

Recombinant Human TNF-alpha, GMP Grade

Catalog No.	CS481A-GMP CS481B-GMP	Quantity:	5 µg 100 µg
Alternate Names:	Tumor necrosis factor, Cachectin, TNF-alpha, Tumor necrosis factor ligand superfamily member 2, TNF-a		
Description:	<p>Tumor necrosis factor alpha (TNF-α) is the best-know 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.</p> <p>Manufacturing and testing of this product complies with ICH Q7 guidelines.</p>		
UniProt ID:	P01375		
Source:	<i>E. coli</i>		
Molecular Weight:	~17.5 kDa (158 aa) monomer		
Formulation:	Lyophilized from sterile-filtered 5 mM Na ₂ HPO ₄ , 5 mM NaH ₂ PO ₄ , 10 mM NaCl, pH 7.0.		
Purity:	> 98% by SDS-PAGE and HPLC		
Endotoxin Level:	< 0.01EU/µg as determined by LAL method.		
Contaminants:	< 0.05% host cell protein by ELISA < 20 ng/mg when tested by qPCR. Sterile, negative for Mycoplasma, virus		
Biological Activity:	ED ₅₀ < 0.05 ng/ml, by dose-dependent cytotoxicity assay using murine L929 cells.		
Specific Activity:	> 2.0 × 10 ⁷ U/mg in the presence of actinomycin D, which is calibrated against rHuTNF-α/TNFSF2 WHO International Standard (NIBSC code: 12/154).		
Amino Acid Sequence:	MVRSSSRTPS DKPVAHVVAN PQAEGQLQWL NRRANALLAN GVELRDNQLV VPSEGLYLIY SQVLFKGGQC PSTHVLLTHT ISRIAVSYQT KVNLLSAIKS PCQRETPEGA EAKPWYEPIY LGGVFQLEKG DRLSAEINRP DYLDFAESGQ VYFGIIAL		
Reconstitution:	Centrifuge the vial prior to opening. Reconstitute with sterile water at 0.1-1.0 mg/ml by gently pipetting to wash down the sides of the vial to ensure full recovery of the protein into solution. Do not vortex. Allow a few minutes for complete solubilization.		
Storage & Stability:	Lyophilized vial is shipped at ambient temperature. Immediately upon receipt, store unopened vial at -20°C (manual defrost freezer) or -80°C for up to 36 months. Upon reconstitution, prepare working aliquots and store at -20°C (manual defrost freezer) or -80°C. It is recommended that a carrier protein such as 0.1% HSA or BSA is added for long term storage. For short term storage reconstituted material is stable for 4-6 weeks when stored at 2-8°C. Avoid repeated freeze-thaw cycles.		



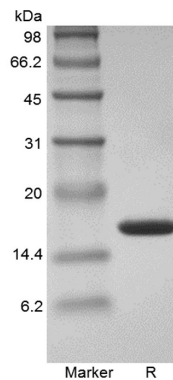
Applications:

For *ex vivo* use only. Not for injection or diagnostic procedures. The safety and efficacy of this product in diagnostic or other clinical uses has not been established.

Country of Origin:

USA

SDS-PAGE GMP Grade rhTNFa
Single Prominent band at 17.5 kD



NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.



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