

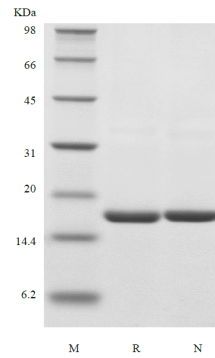
## TNF

### Recombinant Human Tumor Necrosis Factor Alpha

<b>Catalog No.</b>	CS481A CS481B CS481C	<b>Quantity:</b>	10 µg 100 µg 500 µg
<b>Alternate Names:</b>	Tumor necrosis factor, Cachectin, TNF-alpha, Tumor necrosis factor ligand superfamily member 2, TNF-a		
<b>Description:</b>	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.		
<b>UniProt ID:</b>	P01375		
<b>Source:</b>	<i>E. coli</i>		
<b>Molecular Weight:</b>	~17.5 kDa (158 aa) monomer		
<b>Formulation:</b>	Lyophilized from sterile-filtered 5 mM Na <sub>2</sub> HPO <sub>4</sub> , 5 mM NaH <sub>2</sub> PO <sub>4</sub> , 10 mM NaCl, pH 7.0.		
<b>Purity:</b>	>98% by SDS-PAGE and HPLC analyses.		
<b>Endotoxin Level:</b>	<1 EU/µg of recombinant protein as determined by LAL method.		
<b>Biological Activity:</b>	ED <sub>50</sub> < 0.05 ng/ml, by dose-dependent cytotoxicity assay using murine L929 cells.		
<b>Specific Activity:</b>	> 2.0 × 10 <sup>7</sup> IU/mg in the presence of actinomycin D		
<b>Amino Acid Sequence:</b>	MVRSSSRTPS DKPVAHVVAN PQAEGQLQWL NRRANALLAN GVELRDNQLV VPSEGLYLIY SQVLFKGQGC PSTHVLLTHT ISRIAVSYQT KVNLLSAIKS PCQRETPEGA EAKPWYEPIY LGGVFQLEKG DRLSAEINRP DYLDFAESGQ VYFGIIAL		
<b>Reconstitution:</b>	<b>Centrifuge the vial prior to opening.</b> 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. <b>Do not vortex.</b> Allow a few minutes for complete solubilization.		
<b>Storage &amp; Stability:</b>	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. <b>Avoid repeated freeze-thaw cycles.</b>		



## SDS-PAGE



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**Cell Sciences®**  
65 Parker Street  
Unit 11  
Newburyport, MA 01950

Toll Free: 888-769-1246  
Phone: 978-572-1070  
Fax: 978-992-0298

E-mail: [info@cellsciences.com](mailto:info@cellsciences.com)  
Website: [www.cellsciences.com](http://www.cellsciences.com)