

TNF

Recombinant Human Tumor Necrosis Factor Alpha His

Catalog No.	CS481A CS481B CS481C	Quantity:	10 µg 50 µg 1 mg
Alternate Names:	DIF, TNF-alpha, TNFA, TNFSF2		
Description:	Tumor necrosis factor alpha (TNF-alpha), also called cachectin, is produced by neutrophils, activated lymphocytes, macrophages, NK cells, LAK cells, astrocytes endothelial cells, smooth muscle cells and some transformed cells. TNF-alpha occurs as a secreted, soluble form and as a membrane-anchored form, both of which are biologically active. The naturally-occurring form of TNF-alpha is glycosylated, but non-glycosylated recombinant TNF-alpha has comparable biological activity. The biologically active native form of TNF-alpha is reportedly a trimer. Human and mouse TNF-alpha show approximately 79 % homology at the amino acid level and cross-reactivity between the two species. Two types of receptors for TNF-alpha have been described and virtually all cell types studied show the presence of one or both of these receptor types. Recombinant Human TNF-alpha is a single, non-glycosylated polypeptide chain containing 157 amino acids with a 6 × His tag at the N-terminus.		
Gene ID:	7124		
Source:	<i>E. coli</i>		
Molecular Weight:	18.3 kDa		
Formulation:	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.0.		
Purity:	>97% by SDS-PAGE and HPLC analyses.		
Endotoxin Level:	<1 EU/µg of recombinant protein as determined by LAL method.		
Biological Activity:	Fully biologically active when compared to standard. The ED ₅₀ determined by a cytotoxicity assay using mouse L929 cells is less than 0.05 ng/ml.		
Specific Activity:	> 2.0 × 10 ⁷ IU/mg in the presence of actinomycin D		
Amino Acid Sequence:	MHHHHH VRS SSRTPSDKPV AHVVANPQAE GQLQWLNRRRA NALLANGVEL RDNQLVVPSE GLYLIYSQVL FKGQGCPSTH VLLTHTISR I AVSYQTKVNL LSAIKSPCQR ETPEGAEAKP WYEPIYLGGV FQLEKGDRLS AEINRPDYLD FAESGQVYFG IIAL		
Reconstitution:	Centrifuge vial prior to opening. Add sterile distilled water or aqueous buffer to a concentration of 0.1-1.0 mg/mL. Further dilutions should be made in appropriate buffered solutions.		
Storage & Stability:	This lyophilized preparation is stable at 2-4°C, but should be kept desiccated at -20°C for long term storage. Upon reconstitution, the preparation is stable for up to one week at 2-4°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -80°C. Avoid repeated freeze/thaw cycles.		

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